A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON KNOWLEDGE AND PRACTICE REGARDING FAST FOOD RELATED HEALTH HAZARDS AMONG ADOLESCENT BOYS FROM SELECTED SCHOOL AT MADURAI.

BY

G.KANAGAMANI

A dissertation submitted to the Tamil Nadu Dr. M. G. R. Medical University,

Chennai.

In partial fulfillment of the requirements for the degree of Master of Science in Child Health Nursing

UNDER THE GUIDANCE OF

Prof. Dr. N. JESSIE METILDA, M. SC, Ph.D (N).,

HOD Child Health Nursing,

C. S. I. Jeyaraj Annapackiam College of Nursing,

Madurai-625004.

October- 2018

CERTIFICATE

This is to certify that the dissertation entitled **"A study to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys from selected school at Madurai"** is a bonafide work done by **G.Kanagamani**, C. S. I. Jeyaraj Annapackiam College of Nursing, Madurai submitted in partial fulfillment for the degree of Master of Science in Nursing.

Signature of the Principal: _____

Prof. Dr. C. JOTHI SOPHIA, M. SC, PhD (N)

College seal:

A STUDY TO EVALUATE THE EFFECTIVENESS OF VIDEO ASSISTED TEACHING PROGRAM ON KNOWLEDGE AND PRACTICE REGARDING FAST FOOD RELATED HEALTH HAZARDS AMONG ADOLESCENT BOYS FROM SELECTED SCHOOL AT MADURAI.

Approved by the dissertation committee on.....

RESEARCH CO-ORDINATOR **.....**

Prof. Dr. C. JOTHI SOPHIA, M. SC, Ph.D (N).,
Principal,
C. S. I. Jeyaraj Annapackiam College of Nursing,
Madurai-625004.

RESEARCH GUIDE **.....**

Prof. Dr. N. JESSIE METILDA, M.Sc., Ph.D (N).,
HOD- Child Health Nursing,
C. S. I. Jeyaraj Annapackiam College of Nursing,
Madurai-625004.

MEDICAL GUIDE **.....**

Dr. (Mrs). SELVA PRAMILA, M.B.B.S., DCH.DNB.
Department of Pediatrics,
Christian Mission Hospital,
Madurai-625001.

A dissertation submitted to

The Tamil Nadu Dr. M. G. R. University, Chennai.

In partial fulfillment of the requirement for the Degree of

Master of Science in Nursing

October-2018

CERTIFICATE OF THE EXAMINERS

This is to certify that the dissertation entitled **"A study to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys from selected school at Madurai"** is a bonafide work done by **G.Kanagamani**. C. S. I. Jeyaraj Annapackiam College of Nursing, Madurai, submitted in partial fulfillment for the degree of Master of Science in Nursing.

SIGNATURE OF THE EXAMINERS:

1. External: _____ **2. Internal:_____**

Date: **Date:**

ACKNOWLEDGEMENT

"Thanks be to God for his indescribable gift"

First, I thank the almighty Omnipotent, Omniscient and Omnipresent God for giving me strength and courage throughout the period of my studies and for this guidance and for helping me to complete this dissertation.

I wish to express my immense thanks to **Prof. Dr. C. Jothi Sophia, M. Sc, Ph. D (N).,** Principal, and C. S. I. Jeyaraj Annapackiam College of Nursing of Nursing for her support throughout the research study.

I convey my heartfull thanks **Prof. Dr. Merlin Jeyapal, M. Sc, Ph. D (N),** Vice Principal, and C. S. I. Jeyaraj Annapackiam College of Nursing for her support during my research study.

I extend my deep sense of duty to express our gratitude to my research Guide **Prof. Dr.N. JESSIE METILDA, M.Sc, Ph. D (N),** Head of Child health Nursing Department, C. S. I. Jeyaraj Annapackiam College of Nursing for her support to ensure the best quality of this piece of work. Her excellent guidance, valuable suggestions, constant help, affectionate support and assistance from initial step to complete of the study.

I extend my sincere thanks to medical guide **Dr. (Mrs). SELVA PRAMILA, M.B.B.S., DCH, DNB.** Department of Pediatrics, Christian Mission Hospital, Madurai.

I intimate my immense thanks to our PG coordinators **Prof.Dr.Y.John Sam Arun Prabhu, M.Sc., Ph.D(N).,** Head of Community Health Nursing and **Assis. Prof. Mrs. Jeyajothi, M.Sc. (N).,** C.S.I. Jeyaraj Annapackiam College of

Nursing for their support, wholehearted encouragement and opinions towards this study.

My sincere gratitude and thanks to **prof**. **Dr.M. Kannan, M.A (MSW). M.B.A., M.Phil. (TISS)., Ph.D., Mr. Mani, M.Sc., M.Phil.,** Statistician for his meticulous opinion, suggestion in analysis and interpretation of data without which the dissertation would not have been accomplished.

I wish to express my sincere thanks to the Phd scholars **Prof. Dr.Nalini, M.Sc, Ph.D (N),** and Principal Ultra College of Nursing Madurai, **Prof. Dr. Helen Pertida, M.Sc, Ph.D (N)., Dr. Sebasan, MBBS, DPM, and MNAMS, Ph.D.** Psychiatrist, Christian Mission Hospital**. Mr.Prabhakarn, M.SC** Biochemistry **Mrs. Thenmozhai M.Phil, Ph.D.,** Nutrition **Dr.Charles, M.S., M.ch., DHM, DA,** Medical Director, Christian mission hospital, for his excellent guidance and support for the successful completion of the study.

The grapes are trodden until all the juice is expressed my special thanks to all the **participants** who participated in this study.

I wish to express my thankful to **Mr. David Brother** with help of make video for my research study.

I thank our department staff **Prof.Mrs.V.Gomathi,** M.Sc(N)., Ph.D., Asso. Professor, **Prof.Mrs.Christina** M.Sc.,(N) Asso.Professor, **Prof.Mrs.Grace balammal** M.Sc.,(N) Asso. Professor, **Mrs.Jabarani** M.Sc.,(N) lecture and **Miss.Jesintha** B.Sc.(N)., Clinical Instructor.

I am compelled to **Mrs. Angeline Mannova,** the Librarian of C.S.I. Jeyaraj Annapackiam College of Nursing, and **library staff** of **Dr. Tamil Nadu M.G.R.**

Medical University, Chennai and CMC, Vellore for their cooperation and assistance towards building a sound knowledge base for this study.

I have no word to appreciate all my **classmates VINEYARD AT BAALHAMON'16** those bestowed their endurance in one or another way to the triumphant of the study.

I thank **Miss.Priyanka** M.Sc(N)., Lecture for her guidance.

My emotions fall short of right vocabulary to express my immense debts to my lovable husband **Mr.T.Alaguraj Petrol Chemical Engineering** my sweet sun **A.Sudeep Kannan**, Studying L.K.G, my dearest uncle, aunty **Mr.Thangaraj**, and **T. Dhanalkshmi** my brother in law **T. Suseeyandran Studying Civil Service,** who are the person for all this hard work and study. Their constant prayers, love, sacrifice, encouragement and support throughout the master program without which this study would not have been possible. Once again, my deepest thanks to all.

I am very much bewitched to express my heartfull extension of thanks to my father **Mr. P .Ganavel** and **Mrs. Chellathai** for their constant encouragement and suggestion towards the stratagem of this research work.

ABSTRACT

"A study to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys from selected school at Madurai"was undertaken by **G. Kanagamani** in partial fulfilment of the requirement for the degree of Master of Science in Nursing at C.S.I Jeyaraj Annapackiam College of Nursing, affiliated to the Dr.M.G.R Medical University, Chennai, October -2018.

Objectives

1. To assess the pre-test and post-test knowledge and practice regarding video assisted teaching program on fast food related health hazards among adolescent boys in control and experimental group .
2. To evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in experimental group.
3. To compare the pre-test and post-test score of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys between control and experimental group.
4. To find out the co-relation between knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in control and experimental group.
5. To find out the association between pre knowledge and practice on video assisted teaching program regarding fast food related health hazards with their selected demographical variables among adolescent boys in control and experimental group.

Review was done relevant to this study. The conceptual framework for the study was based upon general system theory model. The research design was quasi-experimental non-randomized control group design. To evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys in selected school at Madurai. For pilot study, 6 samples were selected at CSR Thirunagar higher secondary school at Madurai. The feasibility of main study found through the pilot study. A total of 60 samples were included in this study using purposive sampling technique. The experts validated the tool on self-administered structured questionnaires assessed by the researcher. Reliability of the tool was r = 0.88. Main study was done in CSI boys higher secondary school at Madurai. The collected data was analyzed tabulated and interpreted using descriptive and inferential statistics. Result showed that

- The effect of video assisted teaching program regarding fast food related health hazards in the experimental group was highly significant among adolescent boys.
- Level of knowledge regarding fast food related health hazards among adolescent boys with adequate knowledge 75%, moderate knowledge 51-75%, inadequate knowledge less than 50% in experimental group.
- Level of practice regarding fast food related health hazards among adolescent boys with poor practice 33%, average practice 34 -66%, good practice more than 66% in experimental group.
- Over all paired ‘ t ’ test was found in experimental group pre and post- test score to evaluate the effectiveness of video assisted teaching program on knowledge regarding fast food related health hazards among adolescent boys ‘t’ value is 8.58 and p value $p<0.001$ was highly significant.

- Over all paired ‘ t’ test was found in experimental group pre and post-test score to evaluate the effectiveness of video assisted teaching program on practice regarding fast food related health hazards among adolescent boys ‘t’ value is 8.25 and p value p<0.001 was highly significant.
- Over all unpaired ‘t’ test was found in pre-test score knowledge level between control and experimental group regarding fast food related health hazards among adolescent boys ‘t’ value is 0.34 and p value p<0.734 was no significant.
- Over all unpaired ‘t’ test was found in post-test score knowledge level between control and experimental group to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in’t’ value is 8.515 and p value p< 0.001was highly significant.
- Over all unpaired ‘t’ test was found in pre-test score practice level between control and experimental group regarding fast food related health hazards among adolescent boys in’t’ value is 0.32 and p value p<0.746 was no significant.
- Over all unpaired ‘t’ test was found in post-test score practice level between control and experimental group to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in’t’ value 7.07 and p value p<0.001 was highly significant.
- Co-relation between knowledge and practice in control and experimental group both pre-test and post-test ‘t’ value 0.681 and p value p<0.001 was highly significant.

- There was no significant association between pre-test levels of knowledge in control and experimental group with their selected demographic variables.
- There was significant association between pre-test levels of practice in control and experimental group with their selected demographic variables (Religion, educational status and source of information age).

INDEX

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER –I

INTRODUCTION

"BODY IS TEMPLE OF GOD"
HEALTH IS WEALTH

Fast food is a name for food that is made and presented to customers in short time. It is usually made with preheated or precooked ingredients, prepared in bulk and sold in packages for take-away. As a term, "fast food" appeared for the first time in Merriam–Webster dictionary in 1951 but its roots are much, much older. Fast food is a necessity of civilization since we have civilizations. From the ancient to modern times street vendors sold food ready to eat for those with less money and on hard times. Today we have restaurants that do the same.

Life is filled with joy and sorrow, success and failure, health and sickness, wealth and poverty. It is hard to find a person who has not experienced these. It is rarely seen, any family, which does not have any problem, arises only after a certain age. In fact, problems arise at any stage of life. When changes take place in our life, we find it harder to adjust and this itself leads to a problem. The changes taking place in our society have made themselves felt in every sphere of life political, economic and social. Technological changes have made a major impact on people's lives and work. Industrialization has resulted in social and vocational mobility. It has affected child –rearing practices too technological advancements and the changing socio-economic and political .Diet plays an important role both in the maintenance of the health and prevention of disease but children are unaware of the food they eat and the effects of the foods particularly fast food on health consumption of fast foods since last few decades. This rising fast food consumption is because of the changes in life

style, the ready availability, taste, Low cost, peer pressure and marketing strategies, which makes it popular among children and adolescents.

A growing number of women are working outside the homes and they have less time to prepare food for their children so children skip meals and eat fast food. Studies have shown a positive correlation of increased body mass index (BMI) among adolescents, advertisement on television, magazine, craze for trendy foods, convenience, mood, body image are the factors that fluency the food choice of adolescents. The frequent fast food consumption causes teens and young adult to gain more weight and increased the risk of obesity. Globally 200 million schoolchildren are either overweight or obese, of those 40 – 50 million are classified as obese. Globally Indians are now amongst the top ten lists of most frequent consumers of fast food s because people particularly adolescent are replacing healthy nutritious foods by fast foods. Hence, they are at a greater risk of developing health hazards such as risk of diabetes, hypertension, cardiac problems, osteoporosis and obesity which is a major health problem in worldwide. Nutritional intake during adolescence periods is important .Sever physical, psychological and behavioral changes may affect food habits during adolescence and have long – term consequences on adult health status .FOOD!'', fast food comprises of anything that is quick tasty, convenient and fashionable. It seems to have engulfed every age, every race and the newest are children. Children are experiencing so much growth they my always feel hungry. He or She may come to the dinner table ready to eat anything.

Fast foods are these items such as soft drinks and carbonated ,beverages, potato chips (lays, kukri) , ice creams and hamburgers ,fried fast foods, chocolate, ice candy and chewing gums and noodles ,etc. fast foods have too much saturated fats, salt and sugar leads to obesity , heart disease, dental ,osteoporosis and other health

related problems. Healthy and nutritionally sound adolescents reflect the country's potential. Human resource and its future greatly depends on them, India has an edge over many Other countries as its adolescent population from 22.8% or two thirds of the world's 230Million adolescent population (census 2001).India is becoming the disease capital of the world. Our food is a lethal cocktail of highly processed, genetically modified foods, Filling with chemicals and preservatives, topped with excessive sugar and salt Bombing our bodies, and deadening our brains leading to physical and psychological disorders including cancer. Eating right and being physically active are not just a diet or a program these are the keys to a healthy life style. The healthful habits you may reduce your risk many chronic disease such as heart disease. In1905, William fletcher discovered that eating unpolished rice instead of helped to prevent the disease beriberi. Many of the fast foods are high on carbohydrates; low on fiber heavy on fat with little vitamin contents.. If adolescents eating habits are unsupervised they tend to eat faddish or quick snack foods rather than more nutritionally sound ones because both hungry and peer pressure. More children turn away from five pyramid food groups to eat great quantities of fast foods.

Fast foods like , ice cream and chocolate bars are addictive because the mix of ingredients in them activates our ''bliss point,'' according to professor David Kessler a leading scientist snacks, cereals and ready meals can trigger the brain in the same way as tobacco, according to the former head of America's food standards professor Watchdog Kessler ,ex-commissioner of the US food and drug administration (FDA) ,claims that manufacturers have created combinations of fat, sugar and salt that are so tasty many people cannot stop eating them even when full. ''The right combination of tastes trigger a greater number of neurons, getting them to fire more, 'many of us have what's called a ' bliss point' – the point at which we get the

greatest pleasure from sugar, fat or salt (prof Kessler, who ran the FDA from 1990 to is now professor of pediatrics, epidemiology and biostatistics at the California). According to a National survey of India (2005) at least 30 % of adolescents have dental carries, 17% are overweight the problem is growing literally. Overweight teenagers are now a very visible urban phenomenon. In Delhi and Chandigarh, one in every four teenagers are obese while the study of school children in Chennai shows 18 % boys and 16% girls are overweight because of eating habits of unhealthy food items. 'A prospective , observational study was conducted in Karnataka (2003) a prospective, observational analysis on relationship between consumption of sugar-sweetened drinks and childhood obesity showed that 30% of children aged 13 -16 years are overweight . This study focuses on the trends in childhood nutrition over the past few years, such as changes in fast food and soft drink consumption.

NEED FOR THE STUDY

Nutritional intake during adolescence is important for growth, long-term health promotion and development of life ling eating behavior. Nutritional intake during this period may have long-term health implications. Several physical, psychological and behavioral changes may affect food habits during adolescence and have long-term consequences on adult health status. Teenagers identify time as the biggest barrier to eating properly. They perceive themselves as too busy to worry about food, nutrition, meal planning or eating well. They form positive associations with junk foods. Other factors include mood, body image, concerns, habits, media influences and life style choices. Televisions and magazines have greater influence on adolescents eating habits. It is estimated that by the time average children reach the teenage years, they have viewed 1, 00,000 food commercials, most of with high concentration of fat and simple carbohydrates. More than 65% of food advertisements

promote beverages and sweets. Marketing to adolescents has become a multi-billion dollars business. Approximately 23 million teenagers spend 100 billion dollars annually for fast food and other snacks. Fast food consumption national level 80% Indian level 33.66% once per week.

Teenagers are frequent visitors to fast food restaurants, different store; visits occur immediately after school and next higher number during weekday dinnertime. It is important to determine where they eat, how much they spend, and what they buy. This information is vital in helping and providing nutritional care plan for adolescents. Fast food refers to fast foods which are easy to make, and easy to consume. They have only fats lying in it causing ill effects on the health of the adolescent. The taste is the most attractive feature in fast foods. Nevertheless, it there at least little use of our body and health. 'Michael Jawbone Aptly' wins the phrase fast food in 1972, as slang for foods of useless, rubbish, no nutritional value. Their contents are rich in sodium salts and or sugar and fats which provide high calories yet useless in value. Fast food and diet does not go hand in hand. Perhaps this is the reason why fast foods are also called as empty calorie foods. Nevertheless, fast foods are popular because of their simplicity to manufacture, long course their taste. The difference between fast food, meal and a home cooked one is the sheer quantity of calories and fat it delivers into the body. The United States 'Department of Agriculture' (2009) recommended daily intake for a normal adolescent is 2100 Calories and maximum of 93g of fat. A meal at a fast food outlet-burger, fries, drink and dessert can deliver almost all of that in a single servings fast foods such as potato wafers and Cheetos, do not even need cooking its prefer to eat them when people watch T.V. where it saves time and hurry eating pizzas and burgers, as they are several our door step down days. Fast food has become a prominent feature of the diet

of adolescents throughout the world. Fast foods pose health risks both because of what they contain and because of what they replace in diet. Even though fast foods are tastier and easily available, it has become the biggest effects of cancer. Stuffed with loads of fat, these eatables increase the level of cholesterol in the body and invite obesity, which is believed to be 'Mother of Cancer' Most colors in fast foods are often inedible, carcinogenic and harmful to the body; they can affect the digestive system and can lead to hyperactive activity and lapses of concentration in children. Children suffering from learning disabilities are often advised against eating food with artificial coloring. Studies suggest that one soda contains 9 Teaspoons of sugar, gives more added sugar than its recommendation. There are over 500 Calories and 40% of daily-recommended fat in quarter-pound cheeseburgers. In large fries, there is 510 more calories plus 47% g of daily-recommended fat. All these acts as a base for childhood obesity.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

OBJECTIVES

1. To assess the pre-test and post-test knowledge and practice regarding video assisted teaching program on fast food related health hazards among adolescent boys in control and experimental group .
2. To evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in experimental group.

3. To compare the pre-test and post- test score in knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys between control and experimental group.
4. To find out the co- relation between knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in control and experimental group.
5. To find out the association between pre knowledge and practice on video assisted teaching program regarding fast food related health hazards with their selected demographical variables among adolescent boys in control and experimental group.

HYPOTHESIS

H1 – There is a significant difference between pre - test and post-test score knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in experimental group.

H2 – There is a significant difference between the pre-test and post-test score knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in control and experimental group.

H3 – There is a co-relation between knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in control and experimental group.

H4- There is a significant association between pre-test score in knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys with their selected demographical variables in control and experimental group.

OPERATIONAL DEFINITION

EVALUATE

It refers to systematic performance of video assisted teaching program regarding fast food related health hazards among adolescent boys age between (13 – 16) years.

Effectiveness

It refer to a significant outcome of video assisted teaching program regarding fast food related health hazards among adolescent boys comparing with the control and experimental group.

Video assisted teaching program regarding fast food related health hazards

It refers that a video assisted teaching program regarding fast food related health hazards among adolescent boys through LCD presentation. It was about 45 minutes. It include introduction , history, definition, factors affecting the nutritional status, classification of fast food items, fast food caused system based ill effects, maintain healthy life style, adolescent boys in normal height and weight, recommended diet for adolescent boys.

Knowledge

It refers to the correct responses of the adolescent boys to the items listed in semi-structured knowledge questionnaire regarding fast food related health hazards.

Practices

Refers to the correct responses of the adolescent boys to the items listed in self- explanatory practices questionnaire regarding fast food related health hazards

Adolescent Boys

It refers to the adolescent boy's age between 13 – 16 years.

Assumption

- Video assisted teaching program may improve awareness regarding fast food related health hazards among adolescent boys.
- Video assisted teaching program may reduce fast food consuming among adolescent boys.
- Video assisted teaching program may improve the healthy life style among adolescent boys

Delimitation

- The study was delimited to adolescent boys within the age group of13 – 16 years from selected school, Madurai.
- Adolescent boys were available during the period of study
- Data collection time was limited to 4 weeks.

PROJECTED OUTCOME

The result of the study would help the investigator to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys selected school at Madurai to take possible measures like demographical variables, knowledge and practice questions.

The study findings will help to improve the healthy life style reduce the fast food consuming. Findings on demographic variables would help to identify the factors, which affect the healthy life style among adolescent and improve the knowledge level through the video assisted teaching program regarding fast food related health hazards among adolescent boys at selected school, Madurai.

CHAPTER – II

REVIEW OF LITERATURE

A review of literature enables to get an insight into the various aspects of the problem under study. It covers promising methodological tools, throws light on ways to improve the efficiency of data collection and suggest how to increase effectiveness of the data analysis and interpretation. Review of literature therefore is an essential step in the development of a research project.

"The review of literature is defined as broad, comprehensive, in depth, systematic and critical review of scholarly publications, unpublished scholarly print materials, and audio visual materials and personal communications."

The related literature is organized and presented under the following headings

a) Studies related to effectiveness of video assisted teaching program on fast food related health hazards among adolescent boys.
b) Studies related to pre knowledge and practice regarding fast food

a) Studies related to effectiveness of video assisted teaching program on fast food related health hazards among adolescent boys

Vaishali Pawar, 2015 at Karachi, cross sectional study determined the dietary habits and lifestyle among medical students .The study samples comprised of 384 students. Among those 53.4 percent were males and 46.6 percent were females. A pre-tested semi structured questionnaire was administered after taking consent. The obtained results showed that 97 percent of the students consumed junk food and according to body mass index, 41.7 percent were overweight. An exploratory descriptive approach was adopted to identify the modifiable and non-modifiable

risk factors of coronary artery disease present among adolescents .A sample of 591 students aged between 12-18 years were selected by nonprobability convenient sampling. A structured questionnaire was used to collect the data regarding modifiable and non-modifiable risk factors. The results showed that 71 percent of the samples consumed fast food daily and 67 percent of the samples were found to have 3 or more risk factors for coronary artery disease whereas 22 percent of them had 2 risk factors and 11 percent of them had 1 risk factor for coronary artery disease.

Marila Nelliyanil, 2015 at Mangluor, Fast Food Consumption Pattern and Its Association with Overweight Among High School Boys in Mangalore City of Southern India. This cross-sectional study was done among high school students of 7th, 8th and 9th standard in three major private schools in Mangalore city in March 2012. The ethics committee of the institution approved the study protocol. Result mean age of boys was 13.5±0.9 years. Out of 300 participants, 41(13.7%) were overweight and 8 (2.7%) were obese. 292(97.3%) were fast food users of which 42(14.4%) consumed it every day. Majority of participants were introduced to fast foods through television commercials 193(64.3%). 73(57%) developed this habit as they were bored with home food. Awareness of harmful effects of fast food consumption was known to 186(62%) students and this was found to be associated with the perceived need to control its usage ($p<0.001$). Parental consumption of fast foods was found to influence fast food consumption among children ($p=0.024$). As many as 68(22.7%) and 206(68.7%) children were not eating vegetables and fruits respectively every day. Increased frequency of fast food consumption in a week was found to be associated with overweight or obesity among children after adjusting the effects of confounders ($p=0.003$).

J Jialo, 2015 at New Delhi, This paper examined whether the reported health impacts of frequent eating at a fast food or quick service restaurant on health were related to having such a restaurant near home. Methods: Logistic regressions estimated associations between frequent fast food or quick service restaurant use and health status, being overweight or obese, having a cardiovascular disease or diabetes, as binary health outcomes. In all, 2001 participants in the 2008–2009 Seattle Obesity Study survey were included in the analyses. Results showed eating ⩾2 times a week at a fast food or quick service restaurant was associated with perceived poor health status, overweight and obese. However, living close to such restaurants was not related to negative health outcomes. Frequent eating at a fast food or quick service restaurant was associated with perceived poor health status and higher body mass index, but living close to such facilities was not.

Sarah jane Monica, 2015 at Bhopal, India, Trends in fast food consumption among adolescent Results most of the participants had adequate intake of protein, riboflavin, iron, and sodium, but exhibited low intake for several other nutrients. Among study participants, 95.4% consume restaurants' fast food and 79.1% eat fast food at least once weekly. Burgers and carbonated soft drinks were the main kinds of fast food meals and beverages usually eaten by girls. Adolescent girls who usually ate large portion sizes of fast food had significantly higher mean waist circumference and hip circumference. Participants eat fast food primarily for enjoying the delicious taste, followed by convenience. Restaurants' hygiene and safety standards were the main concern regarding fast food for 62.2% of girls. Finally, international restaurants were preferable by participants to buy fast food compared with local restaurants (70.9% vs. 29.1%).

Gordon-StrachanG, 2015 at Jamaica, estimated the prevalence of overweight, obesity and high waist circumference in 15-19-year-old adolescents and to investigate the association with fast food and sweetened beverage consumption. This study enrolled 1317 (598 male, 719 female) adolescents aged 15-19 years using multistage, nationally representative sampling. The overall prevalence of overweight, obesity and high waist circumference was approximately 15 %, 6 % and 10 %, respectively. Obesity (8.0 % in females, 3.3 % in males) and high WC (16.2 % in females, 1.7 % in males) were significantly more prevalent in females when using internal Z-score cut-offs High WC was associated with the absence of fruit consumption (P = 0.043) and overweight with high sweetened beverage consumption (P = 0.018). Overweight occurs frequently among Jamaican 15-19-year and was associated with increased consumption of sweetened beverages. High WC was more prevalent among females and was related to low consumption of fruits and vegetables.

Harsh Kumar el at. 2013 at Punjab, The study was conducted during the October-November 2011 in the Lovely Professional University hostels. At present 18,000 students residing in the university hostels as information obtained from the university authority from which 10.06% of the total samples i.e., 1811 were targeted and non-parametric test (chi-square) was applied to check the goodness of fit, at 95% level of significance. The survey provides converging evidence of a direct causal link between food advertising, parent's role and behavioral pattern of the hostlers about the fast food consumption.

Geeta Arya, Sunita Mishra, 2013 at Lucknow, Excess consumption of junk foods leads rise to wide variety of health disorders. School canteens are offering foods high in fat and sugar which actually contributing to the youth weight gain along with other problems like infections, food poisonings and dental diseases. Consuming junk

foods might stop the children from taking healthy meals either at school or at home. The practice of high consumption of junk foods like magi noodles, burgers, pao-bhaji, sandwiches, hot dogs, patties, pastries, pop-corn, potato chips, carbonated drinks, biscuits, muffins, toast, kulcha-channa, samosa, chocolates etc. They frequently over consume fast foods and under consume fruits, vegetables and dairy products. According to WHO, in India, more than 3 per cent of the population is in the obese category. It is one of the most effective tool of changing the food habits without affecting their sentiments. Nutrition counseling regarding the importance of balanced diet, harmful effects of junk foods will help to curb the junk food addiction and improving their nutritional status. It should be suggested that there is a need to focus on nutrition counseling to facilitate the intake of healthy junk foods like fermented foods, wheat noodles by adding lots of vegetables, sprouted pulses, sprouted tikka, vegetable samosa & cutlets, wheat and multigrain bread.

David H. Freedman 2013 at USA, Effects of junk foods, Burger King launches low-fat French fries. These lower-calorie fries are part of a marketing ploy to convince Americans that fast food can be healthy. Burger King benefits from Americans being obese. According to the Centers for Disease Control and Prevention, 35% of adults and 17% of children in America are obese. As a nursing student, I see the long-term effects of obesity on a regular basis. These serious problems can only be helped with major lifestyle changes to lower weight and improve overall health.

SaoPaulo, 2012 at Brazil, A cross sectional study to evaluate the consumption of beverage and soft drinks by adolescents of a public school. The study selected 71 adolescents aged between 14 to 17 years from both genders. Data was collected by questionnaire. The result revealed that the most frequent consumed beverage was industrialized fruit juice (38.1%), soft drinks (28.6%) and natural fruit

juices (22.2%) and main place were home (38.2%) school (22.1%). The study concluded that sweet beverage intake was frequent among adolescents specially soft drinks and were consumed at home and at school. The nutrition education program should aim to stimulate the intake of more healthy beverages by adolescents. The result revealed that 30.3% of total sample reported consuming fast food. Adolescents ate more total energy and had poorer diet quality on days with compared with without fast food. The study concluded that consumption of fast food among adolescents in the United States seems to have an adverse effect on dietary quality in ways increase risk for obesity.

Sudha murthy, 2011 at Gujarat, The study includes two private school; samples of 12-15 years were selected randomly using a random sampling method. Predesigned and pre-tested questionnaire was used to collect dietary data. Results states that, the overall prevalence of obesity and overweight was 6.55% and 13.9% .The study showed that important determinants of overweight and obesity were low level of physical activity, watching television or playing computer games, and consuming junk foods.

S. E. Fleischhacker 2009 at USA, The frequent consumption of energy-dense fast food is associated with increased body mass index. This systematic review aims to examine the methodology and current evidence on fast food access and its associations with outcomes. Six databases were searched using terms relating to fast food. Only peer-reviewed studies published in English during a 10-year period, with data collection and analysis regarding fast food access were included. Nearly half of the studies (n = 16) used their own set of features to define fast food. Studies predominantly examined the relationship between fast food access and socioeconomic

factors (n = 21) and 76% indicated fast food restaurants were more prevalent in low-income areas compared with middle- to higher-income areas.

S Stender, 2007 at Denmark, Fast food generally has a high-energy density, which, together with large portion sizes, induces over consumption of calories. Chemical analyses of 74 samples of fast-food menus consisting of French fries and fried chicken (nuggets/hot wings) bought in McDonalds and KFC outlets in 35 countries in 2005–2006 showed that the total fat content of the same menu varies from 41 to 65 g at McDonalds and from 42 to 74 g at KFC. In addition, fast food from major chains in most countries still contains unacceptably high levels of industrially produced *trans*-fatty acids and have powerful biological effects and may contribute to increased weight gain, abdominal obesity, and type two diabetes and coronary artery disease. The food quality and portion size need to be improved before it is safe to eat frequently at most fast-food chains.

James 2004 at England, determine**d** that if a school-based educational program aimed at reducing consumption of carbonated drink could prevent excessive weight gain in children. The results included a decrease in the consumption of carbonated drinks by 0.6 glasses in the intervention group, but increased by 0.2 glasses in the control group. At 12 months, the percentage of overweight and obese children increased in the control group by 7.5% compared with a decrease in the intervention group by 0.2%. The study concluded that a targeted school based educational program produced a modest reduction in the number of carbonated drinks consumed, which was associated with a reduction in the number of overweight and obese children.

Stephan E 2003, **at French**, According to the research, the consumption of fast food on a regular basis leads to excess energy intake leading to an increased risk of overweight and obesity. Calorie content consumed by the children of out-of-home meals was 55% higher than of in-home meals. Results there were 1811 hostlers that took part in the survey having girls (51.5%) and boys (48.5%). Majority of the hostlers belonging to the age group 21-23 years (47.8%) and were undergraduate (70.1%). Most of the hostlers preferred fast food just to satisfy their craving for different tastes (76.7%) in contrast to those (12.0%) that ate it as a normal meal. At least every student skips its one time hostel meal every day (63.8%), preferably lunch (50.5%) and with intention (58.4%). Maximum hostlers agreed that their fast food habit increased after they left their parent's home (65.5%) and this habit going to increase day by day (42.4%). On and average majority of the hostlers spent Rs. 21-40, daily on fast food purchase (38.7%) and maximum hostlers parent's know about their fast food eating habit (56.7%). Most of the hostlers preferred to eat fast food in-group (60.1%), whereas other preferred to eat with opposite gender (22.6%) but only few to prefer to eat when they were alone (12.2%). Maximum numbers of hostlers aware that obesity, heart diseases are associated with fast food consumption (61.8, 73.3%) and believed that advertisement influence their fast food eating behavior that changes their attitude towards normal meal (72.5, 52.0%).

Bowman 1998 at USA, effects of fast food consumption on energy intake and diet quality among children in a national household. This study included 6212 children and adolescents age between 4 to 19 years. Out of them only 30.3% of the total sample reported consuming fast food. Fast-food consumption was highly prevalent in genders, all racial/ethnic groups, and all regions of the country. They have an adverse effect on dietary quality in ways to increase risk for obesity.

b) Studies related to knowledge and practice regarding fast food

Shaba Devi supkota, 2018 at Nepal, assess the junk food consumption and patterns of consumed junk food among secondary level students. Material and Methods: - This was a descriptive cross-sectional research. Simple statistical methods Results: The findings revealed that more girls (53.5%) consumed junk food than boys (79.6%) and those respondents were aware of the meaning of junk food. Majority of respondents (90.1%) preferred junk food for taste, is faster to prepare (44.4%), preferred as influenced by TV advertisements (15.5%), because of peer influences (31.7%) and some (29.6%) respondents preferred junk food because nothing else was available. Concerning patterns of consumed junk food all respondents (100%) consumed 'chat-pat' and noodles, panipuri (97.2%), doughnuts (93%), chocolates (92.3%), biscuits (95.8%), ice cream (65.5%) and cold drinks (65.5%). Only 54.2% of respondents were aware of risks associated with poor eating habits. Conclusion: Adolescents consumed a greater amount of junk food, which led to a majority of ill effects later on. It is recommended that the school and community conduct and implement awareness program on junk food consumption and its ill effects.

National Heart, Lung and Blood Institute (NHLBI), 2017 at United states, Eating frequent fast food meals causes teens and young adults to gain more weight and face an increased risk of developing insulin resistance according to the results of a longitudinal study that followed over 3,000 young adults over a period of 15 years. Funded by the National Heart, Lung and Blood Institute (NHLBI) and published in The Lancet, subjects who ate at fast-food restaurants more than twice each week compared to less than once a week had gained an extra ten pounds and had a two-fold greater increase in insulin resistance, a risk factor for type 2 diabetes. Diabetes is a major risk factor for heart disease.

Michelle M. Rank, 2017 at Australian, impact of junk food in adolescent brain**.** Adolescence is a significant period of physical, social, and emotional development, and is characterized by prominent neurobiological changes in the brain. The maturational processes that occur in brain regions responsible for cognitive control and reward seeking may underpin excessive consumption of palatable high fat and high sugar "junk" foods during adolescence. Recent studies have highlighted the negative impact of these foods on brain function, resulting in cognitive impairments and altered reward processing. The increased neuroplasticity during adolescence may render the brain vulnerable to the negative effects of these foods on cognition and behavior. In this review, we describe the mechanisms by which junk food diets influence neurodevelopment during adolescence. Diet can lead to alterations in dopamine□mediated reward signaling, and inhibitory neurotransmission controlled by γ□amino butyric acid two major neurotransmitter systems that are under construction across adolescence. We propose that poor dietary choices may affects the normal adolescent maturation process and influence neurodevelopmental trajectories, which can predispose individuals to eating and impulsive behaviors.

Elsevier, 2017 at Karnataka, study to assess the knowledge and practice of fast food consumption among pre university students .material and methods: - the study adopted were cross sectional studies, semi structure, self-administered questionnaires were used to collect data and 160 pre – university students were selected .Results**:-** The study included males 83 (51.9%) and females 77(48.1%) respectively. Practice of fast food consumption among the study participants in this study 15(9.4%) of the participants reported that they eat fast food regularly and 115(71.8%) reported that sometimes they had fast food. Based on frequency of fast food consumption.67 (41.9%) reported once in a month and the majority of the

participants 100(62.2%) eat a medium amount of fast food and 83(51.9%) reported they drank soft drinks. The majority of the respondents 116(72.5%) reported that the main reason to have fast food was its delicious taste. Describes that 51(31.87%) of participant had inadequate knowledge, 67(41.88%) of the participants had moderate knowledge and42 (26.2%) of the participates had a adequate knowledge. Out of 77 females, 12(15.6%) had inadequate knowledge, 40(51.9%) had moderate knowledge and 25(32.5) that adequate knowledge.

Dr. Asha P. Shetty, March 2016 at Mangalore, the present study was conducted to assess the knowledge regarding the effects of fast food on health among adolescents in selected Pre University College at Mangalore. Objectives**:** To assess the knowledge regarding the effects of fast food on health among adolescents in selected Pre University College. To find the association between knowledge of adolescents regarding the effects of fast food on health and the selected demographic variables. Methods: A non-experimental descriptive survey design was adopted. A structured knowledge questionnaire regarding effects of fast food consumption was prepared in order to assess the knowledge of adolescents. A sample of 100 adolescents were selected by using non-probability Purposive Sampling technique. Result: The result revealed that 13% of adolescents had inadequate knowledge, 69% has moderate knowledge and 18% has adequate knowledge regarding effects of fast food on health. It was also found that there is a significant association between the knowledge score with selected demographic variables.

Anthony at el, 2016 at Europe, Unhealthy eating behaviors increase with age and have been associated with adverse health consequences in adulthood. We examined the influence of screen-based sedentary behaviors on unhealthy food consumption, such as energy-dense foods and sweetened drinks, among a

representative sample of nearly 60 000 adolescents and assessed the role of possible modifiers. Methods: Data come from the Italian 2009–10 Health Behavior in School-aged Children survey. Data on Eating patterns, sedentary behaviors, physical activity, peers network, Body mass index and socio-economic status were collected following study protocol. Results: Unhealthy food consumption was significantly associated with a lower intake of fruit and vegetables and with the increase of sedentary behaviors in both sexes and in all ages. Conclusions: This study adds evidence to support the importance of investing more resources in educational initiatives both to increase parents' awareness to support adolescents on dietary choices and on time spent in screen-based behaviors.

Vyas, 2012 at New Delhi, survey done on adolescents in metro cities like New Delhi, Bengaluru, Mumbai and Chennai showed that 43% of the children above seven years were obese as their Body Mass Index was found extremely on the higher side. The findings observed that the problem of obesity is due to lifestyle changes in adolescents and would cause Vitamin-D deficiency in them.

Johannesburg, 2009 at South Africa, descriptive, cross-sectional study conducted regarding "Characteristics and Factors Influencing Fast Food Intake of young adult. The data was collected from 341 population consisted primarily of young adults (242) aged between 19 to 30. Twenty-one per % of all participants had fast food at least once a week, while 27.6% had it two to three times a week. Socio-economic group and gender were significantly related to fast food intake, with a larger proportion of participants 65%, in the lower socioeconomic group showing use that is more frequent. Males consumed fast food more frequently than females. The most popular fast foods consumed were burgers (69.5%), pizza (56.6%) and fried chicken (38.4%). Soft drinks were the most popular beverage consumed (56%). The main reasons for choosing fast food were time limitations (58.9%), convenience (58.2%) and taste (52.5%)

As per Chitra and Reddy 2007, with the advent of urbanization and increase in per capita income of the country and particularly the northern region, it is witnessing a shift from an active to a sedentary lifestyle. The importance of breakfast and its contribution to health, especially for children is evident from various studies. Breakfast ideally must provide 25% of daily nutrient requirements. The regular consumption of breakfast helps children to be healthy. The percentage of internet use of adolescents falling in the age of 12 to 17 on a daily basis was increased from 42% in 2000 to 61 % in 2006.

According to Gigli 2004, in contrast to the steady rise of various media technologies, the role of print media has slowed down in many countries as compared to the role it once played in the past. The number of readers has declined due to different developments in the communication technology. The reasons for this could be many the availability of better quality of information from electronic and new media. Moreover, young children are provided with several media options and different technologies. Countries, which are economically weak, have very less number of publications, which cater to the needs of the youth. Moreover these publications are expensive and beyond the reach of the children to afford.

Siega et al, 1998, stated that there is a change in eating patterns not only in children but also in adults. The ritual of eating together with the family has significantly changed and very few families eat meals together. Breakfast is a very important meal of the day, if skipped; it would have an adverse impact on the adolescent's health and later when they become adults. Breakfast is the most important meal of the day has become an outdated idea among adolescents as they believe that having breakfast would add up to more calories.

Dietz and Gormaker, et al. 1985at Delhi, mentioned that children watch television during the day. Television viewing, along with multiple media and food choices offered by media promotes overweight. Children watch commercials while viewing television, these commercials often promote food, which is high in fat and calories and low in nutritive values. These factors contribute excessive weight gain in children aged 6 -17 years. The study include 1,500 Indian school students enrolled in sixth to eleventh grades drawn from rural, urban, and metro settings. The study documents the multiple concerns related to inappropriate dietary practices (fast food consumption, cold drinks, low fruit and vegetable intake), irregular sleeping habits, less religiosity, mild activity pattern, unhealthy daily routine and pursuance of different forms of risk behaviors. The study also showed an association of life style with several contextual variables. The results suggest need for urgent attention to deal with the emerging concerns of risks and promoting factors of health through relevant policy oriented reformulation, coordinated efforts among stakeholders, and initiating culturally appropriate lifestyle interventions among adolescents.

CONCEPTUAL FRAMEWORK

The conceptual framework plays interrelated roles in the progress of science. Their overall purpose is to make is an interrelated concept on abstractions are assembled together in some scheme by virtue of their relevance to a common scheme. It is a device that helps to stimulate research and the extension of knowledge by providing the direction. The present study was aimed at determining the knowledge and practice among adolescent boys regarding fast food related health hazards and evaluating the effectiveness of video assisted teaching program.

The conceptual framework of this study was derived from Ludwing von Bertanlanffy (1968) as cited by Christensen.J.Paula and KennyW.Janet (1995) General system theory. The general system theory was initially introduced in 1930s by Von Bertanlanffy. A system is a set of interrelated parts that come together to form a “whole”. Each part is necessary or integral component is required to make a complete meaning whole. These parts are input, throughput, and feedback.

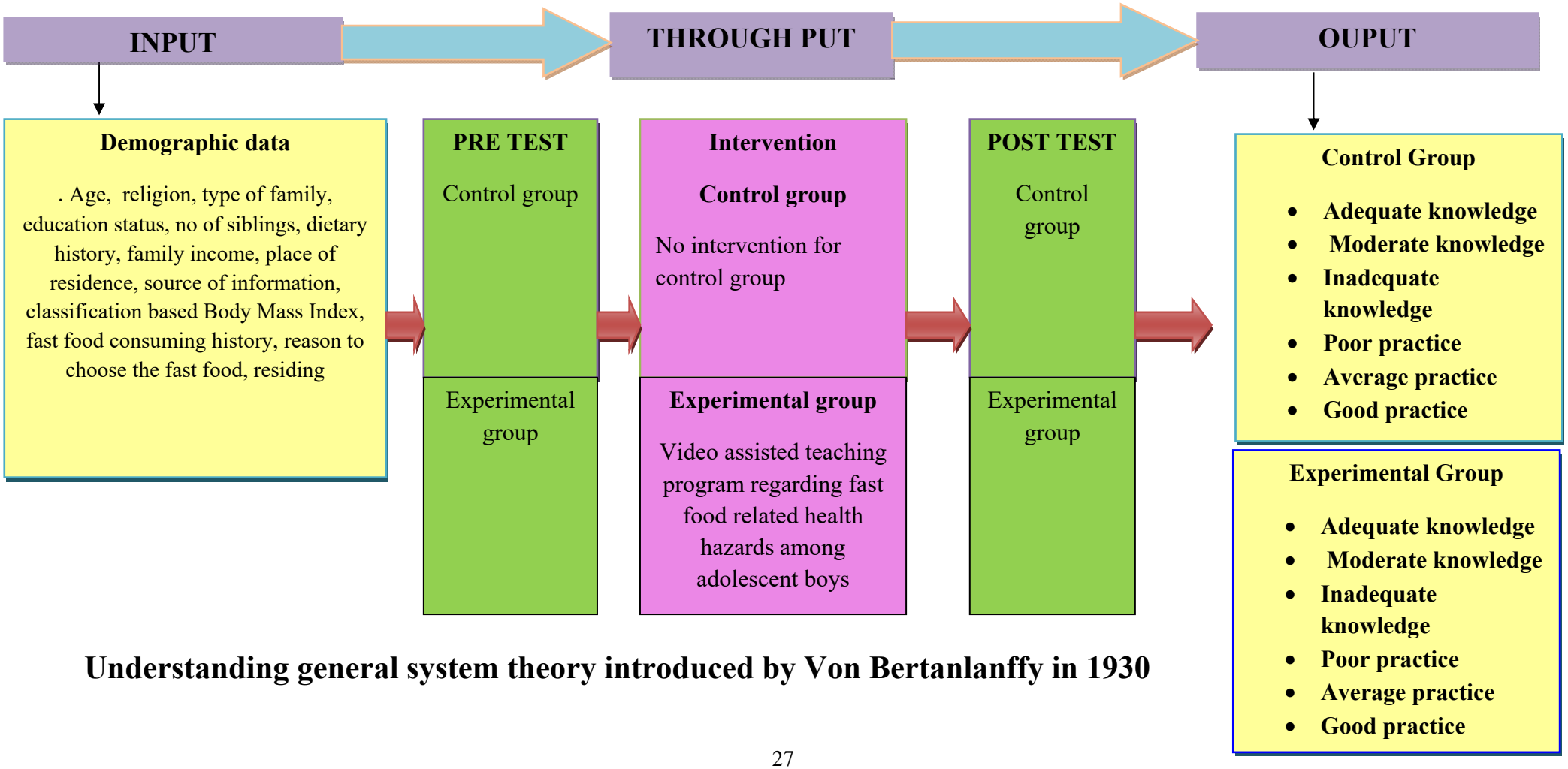
Input is the first component of a system in which information, energy of mater that enters a system. For a system to work well, input should contribute in achieving the purpose of the system. In this study, input refers to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys and demographic variables of adolescent boys by using pre-test semi-structured questions to assess knowledge among adolescent boys and using pre-test self-explanatory questions to assess practice among adolescent boys selected school at Madurai.

Throughput is the second component in which it allows the input to be changes, so that it is useful to the system. In this study throughput refers to the intervention that is process of transformation of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys. In control group

Output is the third component of the system, which measures the success of failure of the output and consequently the effectiveness of the system. In this the expected outcome was obtained by evaluating the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys through demographical data and self-administered questionnaires

Finally the system to determine whether the result of the system has been achieved. It emphasizes the effect of the input, throughput, and output.

CONCEPTUAL FRAMEWORK



Understanding general system theory introduced by Von Bertanlanffy in 1930

CHAPTER III

METHODOLOGY

This chapter with the methodology followed in the study and it was discussed under the heading research approach, research design, variables, settings, population, sample and sampling technique, development and description of tools, scoring key, content validity, reliability, pilot study, protection of human rights, procedure for data collection, plan for data analysis and interpretation of the results.

RESEARCH APPROACH

The quantitative approach was adopted for this study

RESEARCH DESIGN

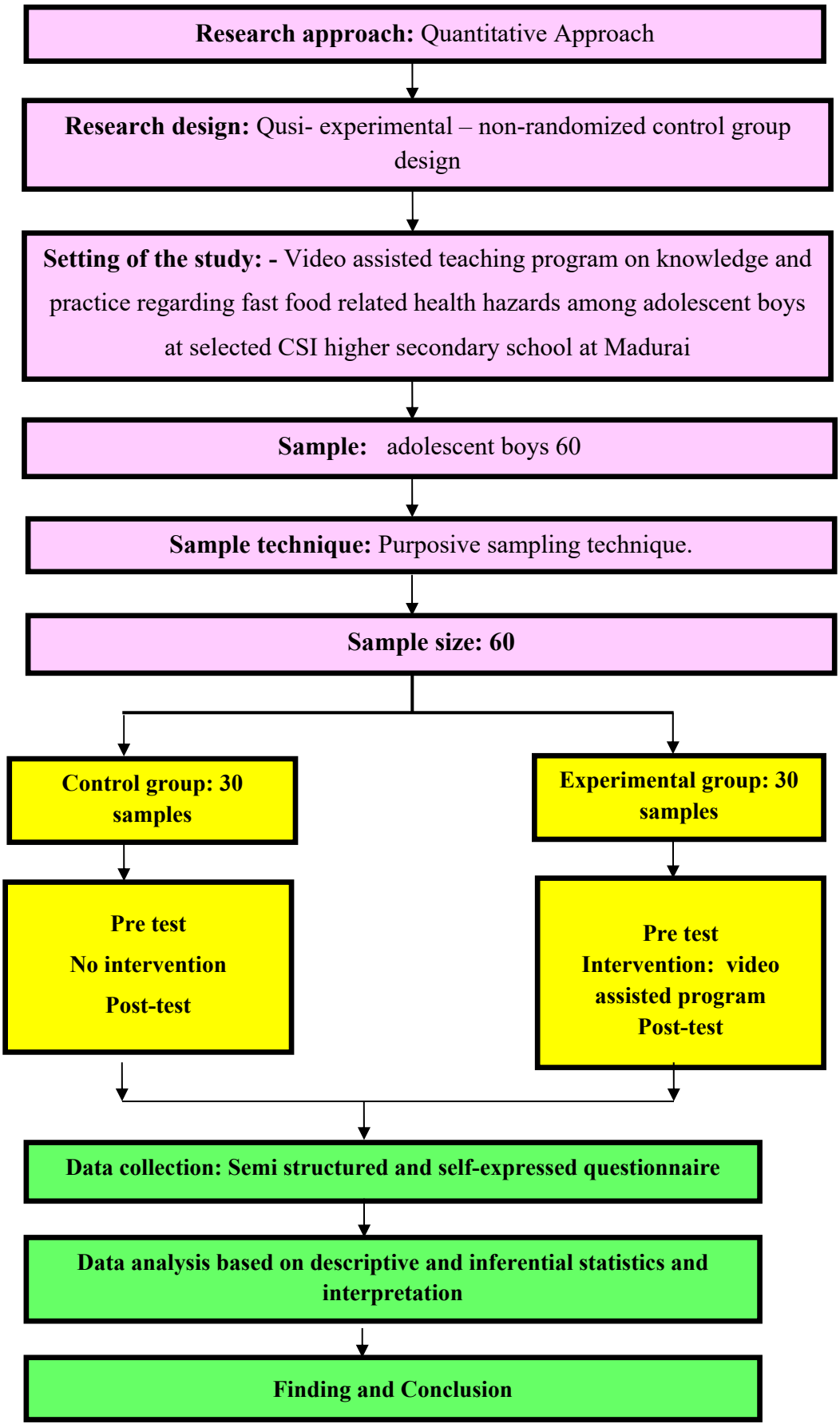
The researcher had chosen the quasi-experimental non-randomized control group design to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys.

GROUP	PRE-TEST	INTERVENTION	POST-TEST
E	O_1	video assisted teaching program	O_2
C	O_1	----	O_2

Key:

E = Experimental group, C = Control group, O_1 = pre assessment knowledge and practice regarding fast food related health hazards among adolescent boys., X = video assisted teaching program, O_2 = post assessment knowledge and practice regarding fast food related health hazards among adolescent boys.

SCHEMATIC REPRESENTATION OF METHODOLOGY



SETTING OF THE STUDY

The study was conducted at selected CSI boy's higher secondary school at Madurai. It is a quarter km away from C S I Jeyaraj Annapackiam College of nursing. For control group samples selected from CSI, school boy's hostel30. For experimental group samples selected from CSI, school day - scholarsboys30. In this study total 60 sample were selected.

POPULATION

Target population

Adolescent boys between the age group of 13 – 16 years the researcher would like to generalize the research findings from selected school at Madurai.

Accessible population

The accessible population was composed of samples from the target population that are accessible to the researcher as study participants.

The adolescent boys between the age group of 13 – 16 years from CSI higher secondary school in Pasumalai at Madurai.

SAMPLING TECHINQUE

Non-probability purposive sampling technique are used to select the sample for both control and experimental group in this study.

Sample

Adolescent boys are fulfilled the inclusion criteria from adolescent boy's hostel at the age between 13 – 16 years student in CSI higher secondary school, Madurai consider as a control group and adolescent boys are fulfilled the inclusion criteria from adolescent boy's day's scholar at the age between 13 – 16 years students consider as a experimental group.

Sample size

The total 60 samples were selected for this study out of which 30 samples for control group and out of which 30 samples for experimental group.

CRITERIA FOR SAMPLE SELECTION

The samples were selected based on the following inclusion and exclusion criteria.

Inclusion criteria

1. Adolescent boy's age between 13 to 16 years participated in this study
2. Adolescent boy's with consuming of fast food since child hood period for consider as a experimental group
3. Adolescent boys without consuming of fast food since childhood period for consider as a control group
4. Hostel adolescent boys consider as a control group and day- scholars adolescent boys consider as a experimental group
5. Adolescent boys are willing to participate in this study
6. Adolescent boys able to read and write Tamil

Exclusion criteria

1. Adolescent boys exposed to similar teaching previously
2. Adolescent boys not available during data collection
3. Adolescent boys not willing to participate
4. English medium adolescent boys not included in this study

DEVELOPMENT OF AN INSTRUMENT

After intensive library search and consultation with experts and with the personal and professional experience, an self-administered structure questions were prepared to evaluate the knowledge and practice regarding fast food related health hazards.

DESCRIPTION OF TOOL

The tool was prepared by the investigator based on objective of the study with the help of review of literature and consultation with experts. A semi structured questionnaire interview schedule was developed to measure the effectiveness of video teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys selected school at Madurai. Tool consist of three parts.

Part I – Demographical variables

It consists of age, religion, no of female siblings, type of family, and educational status, dietary pattern, and family income, place of residence and source of information, fast food consuming history, .and classification of BMI

Part II – knowledge questions

It semi structure questionnaire to evaluate the knowledge regarding fast food related health hazards among adolescent boys. There were 20 questions.

a) Definition of fast food – 1
b) Fast food items- 5
c) Chemical in fast food – 4
d) Effects of fast food – 9
e) Help to avoid fast food – 1

Part III – practice questions

Self-expressed structure questionnaire to evaluate the practice regarding fast food related health hazards among adolescent boys. There were 15 questions.

a) Fast food consuming – 9
b) Health status - 6

SCORING PROCEDURE

Part I

Questionnaire on knowledge regarding fast food related health hazards among adolescent boys age between 13 – 16 years. It consists of 20 multiple choice questions have one right answer, which was allotted a score of one for every right answer and every wrong answer 0 score is given. The total attainable score in knowledge questionnaire was 20.

The knowledge score was interpreted as follows:

Adequate knowledge	-	More than 75%
Moderate knowledge	-	51- 75%
Inadequate knowledge	-	Less than 50%

Part II

Questionnaire on practice regarding fast food related health hazards among adolescent boys age between 13 – 16 years. It consists of 15 questions the total attainable score in 45. The items were measured on a 3-point rating scale.

The practice score was interpreted as follows,

Good	-	More than 66%
Average	-	34 – 66%
Poor	-	Less than 33%

CONTENT VALIDITY OF THE INSTRUMENT

The content validity refers to the degree to which an instrument measures what it is supposed to measure. Validity of the tool was established after expert's opinion

from three nursing Phd scholars, medical persons four members, statisticians two, and psychologist one.

The final instruments were reframed after consulting with guide, and statistician. Then tool and video assisted teaching content were edited by English language experts, translated into Tamil, edited by Tamil language expert and reedited by English language expert.

RELIABILITY OF THE STOOL

The reliability of the effectiveness of video assisted teaching program regarding fast food related health hazards was tested by retest method and Cronbach's alpha method respectively, r = 0.88 which was found to be positive co-relation.

PILOT STUDY

The pilot study was conducted among 6 adolescent boys in CSR Thirunagar Higher Secondary School Madurai. Formal permission was obtained from the institution, ethical committee and the head of the department. Anonymity and confidentiality was maintained while collecting information and oral consent obtained from the samples. 3 samples in control group and 3 samples in experimental group. Post-test was done 7 days after intervention. The pilot study helped the investigator to confirm the feasibility of the main study.

DATA COLLECTION PROCEDURE

Data collection is the gathering information to address the research problem. Prior permission from the authority was sought and the data collection period was 4 week, in the month of March. The study sample were selected by non-probability

purposive sampling based on sample selection criteria. A total 60 adolescent boys were selected for this study out of which 30 samples to control group and 30 samples experimental group. The objective and purpose of the study were explained and oral consent was obtained.

Control group: Pre-test data were collected regarding fast food related health hazards using semi-structured. Questionnaire for knowledge and self-expressed structured interview questionnaire for practice. The time duration about 20 minutes during 3 pm to 6 pm. After 7 days, Post-test was done.

Experimental group, Pre-test data were collected regarding fast food related health hazards using semi-structured questionnaire for knowledge and self-expressed structured interview questionnaire for practice. The time taken was about 20 minutes duration 3 pm to 6 pm. In experimental group intervention given regarding fast food related health hazards. After 7 days Post-test was done. After completing the pre and post data thanked the adolescent boys both control and experimental group.

As a ethical consideration, I educated the control group using video assisted teaching program regarding fast food related health hazards. The collected data were compiled and analyzed using descriptive and inferential statistics and interpretation were presented in tables and figures.

PROTECTION OF HUMAN RIGHTS

Ethical considerations was taken into account for the purpose of the study. The proposed study was conducted after the approval of the dissertation committee of the C.S.I. Jeyaraj Annapackiam College of Nursing. Permission was obtained from the head master of CSI Higher Secondary School in Madurai. The investigator had explained the study and got oral consent from each sample. Assurance was given to the study samples regarding confidentiality of the data collected.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with data analysis collected among adolescent boys and interpretation of the present study involves compilation, editing, coding, classification and presentation of the data for statistical calculation in order to draw inferences and conclusions. Using descriptive and inferential statistics, the study objectives were computed.

The data collected from the respondents were organized, tabulated, analyzed and included applying descriptive and inferential statistics based on the objectives.

1. To assess the pre-test and post-test knowledge and practice regarding video assisted teaching program on fast food related health hazards among adolescent boys in control and experimental group .
2. To evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in experimental group.
3. To compare the pre-test and post- test score in knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys between control and experimental group.
4. To find out the co- relation between knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in control and experimental group.
5. To find out the association between pre knowledge and practice on video assisted teaching program regarding fast food related health hazards with their

selected demographical variables among adolescent boys in control and experimental group.

The study findings were presented with tables and figures under the following captions:

Section I

4.1.1 Frequency and percentage wise distribution to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys from selected schools at Madurai according to their demographic variables in control and experimental group.

Section II

4.1.A Mean, SD and mean percentage pre and post- test score of control group knowledge level regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.1B Mean, SD and mean percentage pre and post- test score experimental group knowledge level of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.1.C Mean, SD and mean percentage pre and post- test score of control group practice level regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.1.D Mean, SD and mean percentage pre and post- test score experimental group practice level of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai

4.1.E Mean, SD and mean percentage pre-test score between control and experimental group knowledge level regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.1.F Mean, SD and mean percentage pre-test score between control and experimental group practice level regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.1.G Mean, SD and mean percentage post – test score between control and experimental group knowledge level of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.1.H Mean, SD and mean percentage post – test score between control and experimental group practice level of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.1.I Frequency and percentage wise distribution to evaluate control and experimental group the level of knowledge regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.1.J Frequency and percentage wise distribution to evaluate control and experimental group the level of practice regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

Section III

4.2.1 paired 't'-test was found in experimental group pre and post- test score to evaluate the effectiveness of video assisted teaching program on knowledge

regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.2.2 paired 't'-test was found in experimental group pre and post-test score to evaluate the effectiveness of video assisted teaching program on practice regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.2.3 Unpaired 't'-test was found in pre-test score knowledge level between control and experimental group regarding fast food related health hazards among adolescent boys from selected schools at Madurai .

4.2.4 Unpaired 't'-test was found in post-test score knowledge level between control and experimental group to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.2.5 Unpaired 't'-test was found in pre-test score practice level between control and experimental group regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

4.2.6 Unpaired 't'-test was found in post-test score practice level between control and experimental group to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

Section IV

4.3.1 Correlation between knowledge and practice in control and experimental group regarding fast food related health hazards among adolescent boys.

Section V

4.4.1 Association between pre-test score levels of knowledge in control group and experimental group with their selected demographic variables.

4.4.2 Association between pre-test score levels of practice in control group and experimental group with their selected demographic variables.

SECTION I

Table: 4.1.1: Frequency and percentage wise distribution to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys from selected schools at Madurai according to their demographic variables in control and experimental group.

Demographic variables	Control group (n=30)		Experimental group (n=30)	
	f	%	f	%
1.Age (in years):				
a. 13 years	10	33.3	9	30
b. 14 years	10	33.3	10	33.3
c. 15 years	5	16.7	8	26.7
d. 16 years	5	16.7	3	10
2.Religion :				
a. Hindu	27	90	26	86.7
b. Muslim	0	0	1	3.3
c. Christian	3	10	3	10
d. Others	0	0	0	0
3. Type of family :				
a. Joint	7	23.3	8	26.7
b. Nuclear	23	76.7	22	73.3
4.Educational status :				
a. 8^{th} STD	9	30	10	33.3
b. 9^{TH} STD	11	36.7	11	36.7
c. 10^{TH} STD	10	33.3		30
5.Number of siblings :				
a. 0	3	10	2	6.7
b. 1	12	40	10	33.3
c. 2	9	30	13	43.3
d. Above2	6	20	5	16.7
6.Dietary pattern :				
a. Vegetarian	2	6.7	2	6.7
b. Non vegetarian	28	93.3	28	93.3
7.Family income monthly :				
a. <3000	20	66.7	8	26.7
b. 3000-6000	5	16.7	16	53.3
c. 6000-10000	4	13.3	6	20
d. >10000	1	3.3	0	0

Demographic variables	Control group (n=30)		Experimental group (n=30)	
	f	%	f	%
8.Place of residence :				
a. Rural	26	86.7	24	80
b. Urban	4	13.3	6	20
9.Source of information :				
a. Magazine	0	0	3	10
b. Media	28	93.3	21	70
c. Peer group	2	6.7	5	16.7
d. Health care professional	0	0	1	3.3
e. Social workers	0	0	0	0
10.BMI :				
a. Normal (18.5-24.9)	9	30	10	33.3
b. Over weight (25.0-29.9)	18	60	16	53.3
c. Class I Obese (30.0-34.9)	3	10	4	13.3
d. Class II Obese (35.0-39.9)	0	0	0	0
e. Class III Obese(above 40.0)	0	0	0	0
11.Fast food consuming since childhood :				
a. Yes	0	0	30	100
b. No	30	100	0	0
12.Reason to choose fast food :				
a. Convenience	0	0	7	23.3
b. Taste	0	0	17	56.7
c. Attractive	0	0	6	20
13.Residing:				
a. With parents	0	0	25	83.3
b. With relatives	0	0	5	16.7
c. At Hostel	30	100	0	0

Table 4.1.1: show the frequency and percentage wise distribution of samples based on their demographical variables of samples in experimental and control group.

Regarding age in control group, 10 (33.3%) samples are between the age group of 13 years, 10 (33.3%) samples are between 14 years, 5 (16.7%) samples are between the age group 15 years, 5 (16.7%) samples are between the age group 16 years. In experimental group, 9 (30%) samples are the age group between 13 years, 10

(33.3%) samples are between the age group 14 years, 8(26.7%) samples are between the age group 15 years, 3 (10%) samples are between the age group 16 years.

Regarding religion of adolescent boys in control, group 27 (90%) samples are Hindu, and 3 (10%) samples are Christians. In experimental group, 26(86.7%) samples are Hindu. 1 (3.3%) samples are Muslim, and Christian 1(10%)

Regarding type of family in control group 7 (23.3%) samples are joint family, 23 (76.7%) samples are nuclear family. In experimental group 8 (26.7%) samples are joint family, 22 (73.3%) samples are nuclear family.

Regarding educational status of control, 9 (30%) samples are 8^{th} standards, 11(36.7%) samples are 9th standards and 10 (33.3%) samples are 10^{th} standards. In experimental group, 17 (56.7%) samples are 8^{th} standards, 11(33.3%) samples are 9^{th} standards, and 13 (43.3%) samples are 10^{th} standards.

Regarding number of siblings in control group 3 (10%) samples are only one 12 (40%) samples are siblings with one, 9(30%) samples are siblings with 2, 6(20%), and number of siblings above 2. In experimental group 6 (7%) samples are only one. 10 (33.3%) samples are siblings with one, 13(43.3%) samples are siblings with 2, and 5 (16.7%) samples are siblings above 2.

Regarding dietary pattern in control group 2 (6.7%) samples are vegetarian and 28 (93.3%), samples are non-vegetarian. In experimental group 2 (6.7%) samples are vegetarian, 28 (93.3%) samples are non-vegetarian.

Regarding family income monthly in control group 20 (66.7%) samples are below 3000 rupees , 5(16.7%) samples family income 3000 – 6000 rupees, 4 (13.3%) samples family income 6000 – 10,000 rupees and above 10,000 rupees 1(3.3%). In experimental group 8 (26. 7%) samples are below 3000 rupees. 16 (53.3%) samples

family income 3000 – 6000 rupees.6(20%)samples family income 6000 – 10,000 rupees , none of them families are above 10, 000.

Regarding place of residing in control, group 26 (86.7%) samples from rural area. 4 (13.3%) samples from urban area. In experimental group 24(80%) samples from urban and 6 (20%) samples from rural area.

Regarding source of information media28 (93.3%) with peer groups 2 (6.7%), and health care professional 1(3.3%) there is no social workers. Experimental group media 21(70%) and peer group 5(16.7%), none of them samples were magazine.

Regarding classification BMI in control group normal 9(30%) over weight 18(60%) class I obese 3(10%) there is no class II and class III obese. In experimental group normal weight 10 (33.3%) over weight 16 (53.3%) and class I obese 4 (13.3%) none of them had class II and class III obese.

Regarding fast food without consuming since childhood period in control, group 30 (100%). In experimental group fast food consuming since childhood period 30(100%)

Regarding reason to choose fast food in experimental group samples are belongs to convenience 7(23.3%), in experimental group samples are belongs to taste 17(56.7%) and in experimental group samples are belong to attractive 6(20%).

Regarding in control group residing at hostel 30 (100%) in experimental group with parents 25(83.3%) and with relatives 5 (16.7%).

Section II

Figure 4.1.A:Mean, SD and mean percentage pre and post- test score of control group knowledge level regarding fast food related health hazards among adolescent boys from selected schools at Madurai

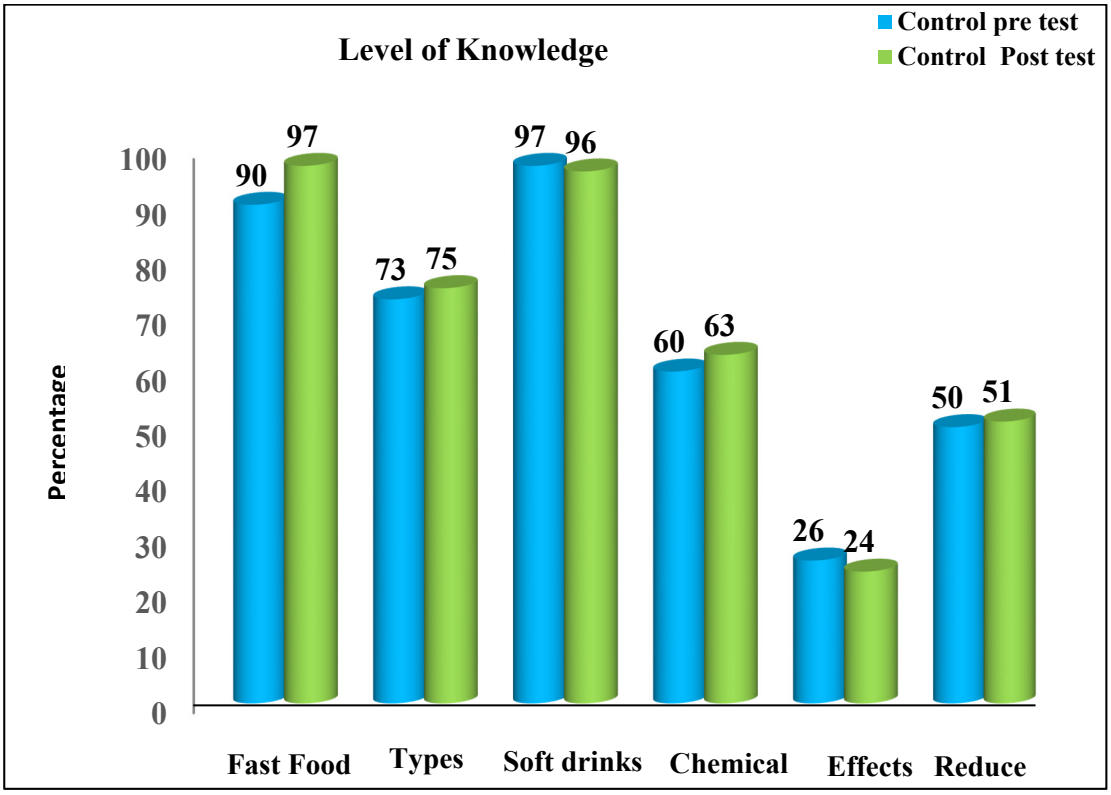


Figure: 4.1.A: Displays the mean percentage difference of pre-test and post-test score of control group level of knowledge regarding fast food related health hazards among adolescent boys. The results shows that the pre-test in control group definition mean percentage 90 % lower than the post-test mean percentage 97%. Fast food items mean percentage 73% pre-test in control group score lower than the post-test score mean percentage 75%. Soft drink storage mean percentage in control group pre-test score 97% higher than post-test mean percentage 96%. Chemical in fast food pre-test mean percentage 60% lower than post-test mean percentage 63%. For effects of fast food pre-test mean percentage 26% higher than post-test mean percentage 24%. For helps to avoid fast food pre-test mean percentage 50% lower than post-test mean percentage 51%.

Figure -4.1.B:Mean, SD and mean percentage pre and post- test score experimental group knowledge level of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai

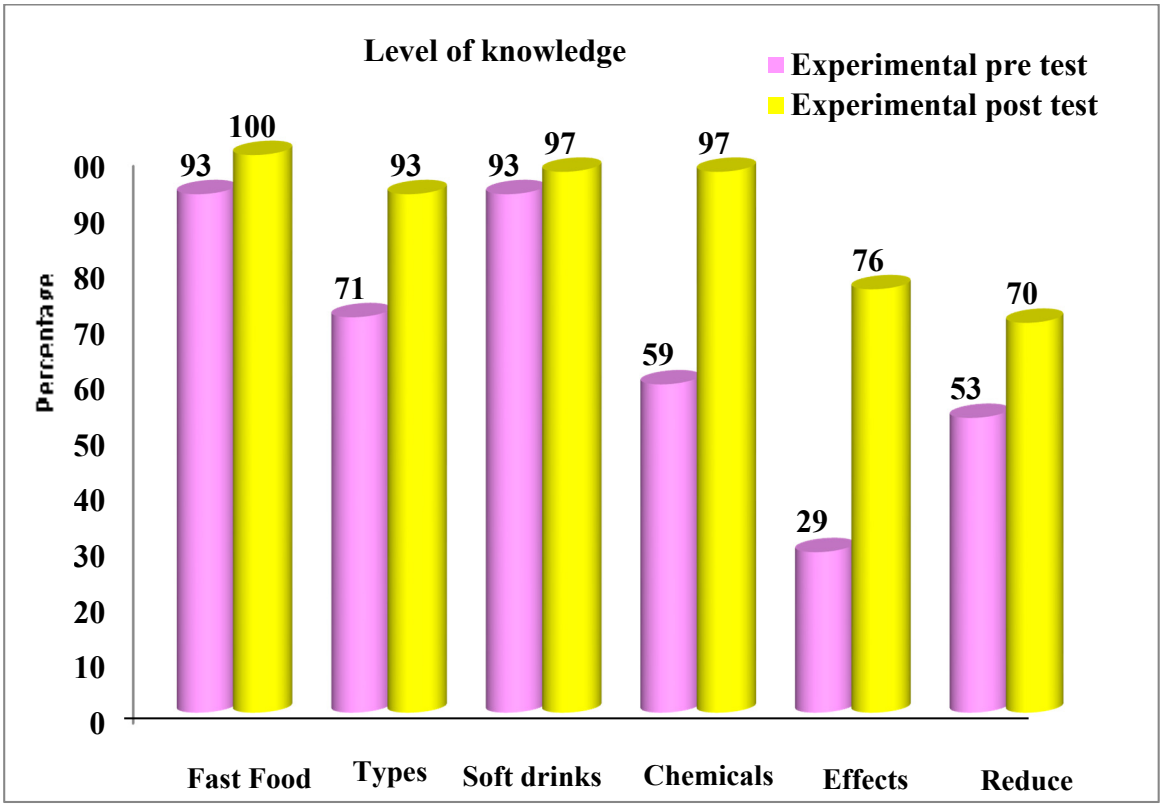


Figure: 4.1.B: Displays mean percentage pre and post- test score experimental group knowledge level of video assisted teaching program regarding fast food related health hazards.

. The results shows that the pre-test in experimental group definition mean percentage 93 % lower than the post-test mean percentage 100%.Fast food items mean percentage 71% pretest in experimental group score lower than the post-test score mean percentage 93%.Soft drink storage mean percentage 93% lower than the post-test mean percentage 97%.Chemical in fast food pre-test mean percentage 59% lower than posttest mean percentage 97%. For effects of fast food pre-test mean percentage 29% lower than post-test mean percentage 76%.For helps to avoid fast food pre-test mean percentage53% lower than post-test mean percentage 70%.

Figure -4.1.C:Mean, SD and mean percentage pre and post- test score of control group practice level regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

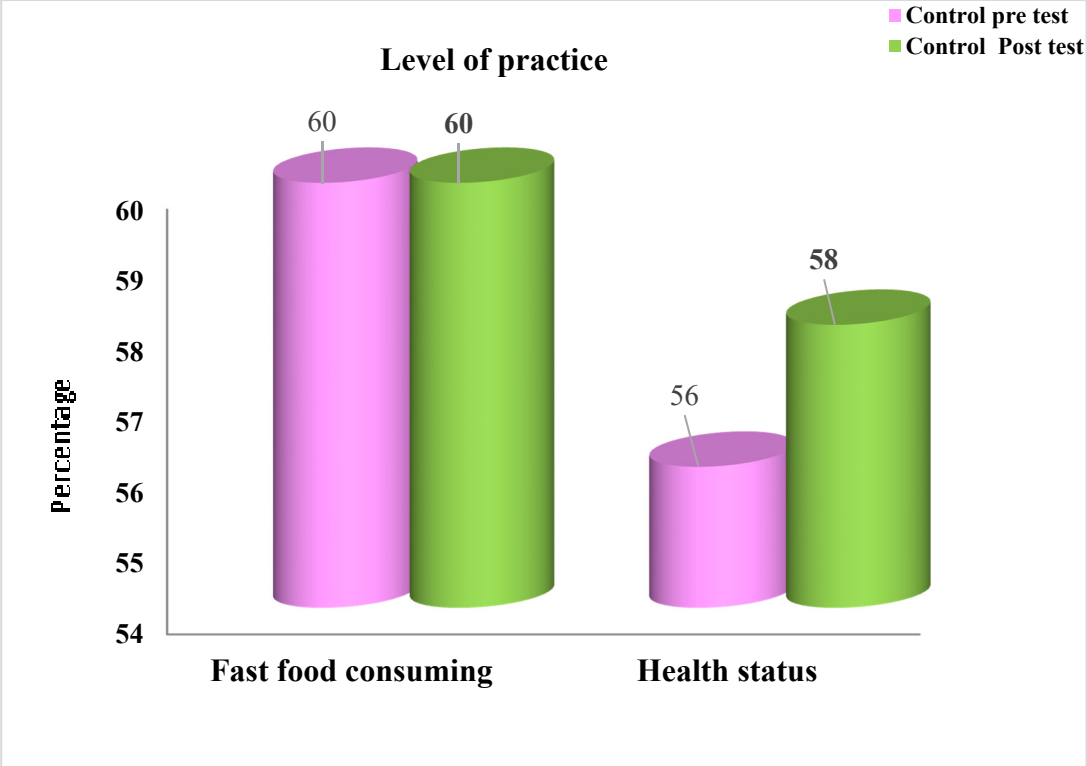


Figure: 4.1.C: Displays the mean percentage pre and post- test score of control group practice level regarding fast food related health hazards**.** The results shows that the pre-test fast food consuming mean percentage 62 % lower than the post-test mean percentage 72%. Health status mean percentage 51% pre-test score lower than the post-test score mean percentage 82%.

Figure 4.1.D:Mean, SD and mean percentage pre and post- test score experimental group practice level of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai

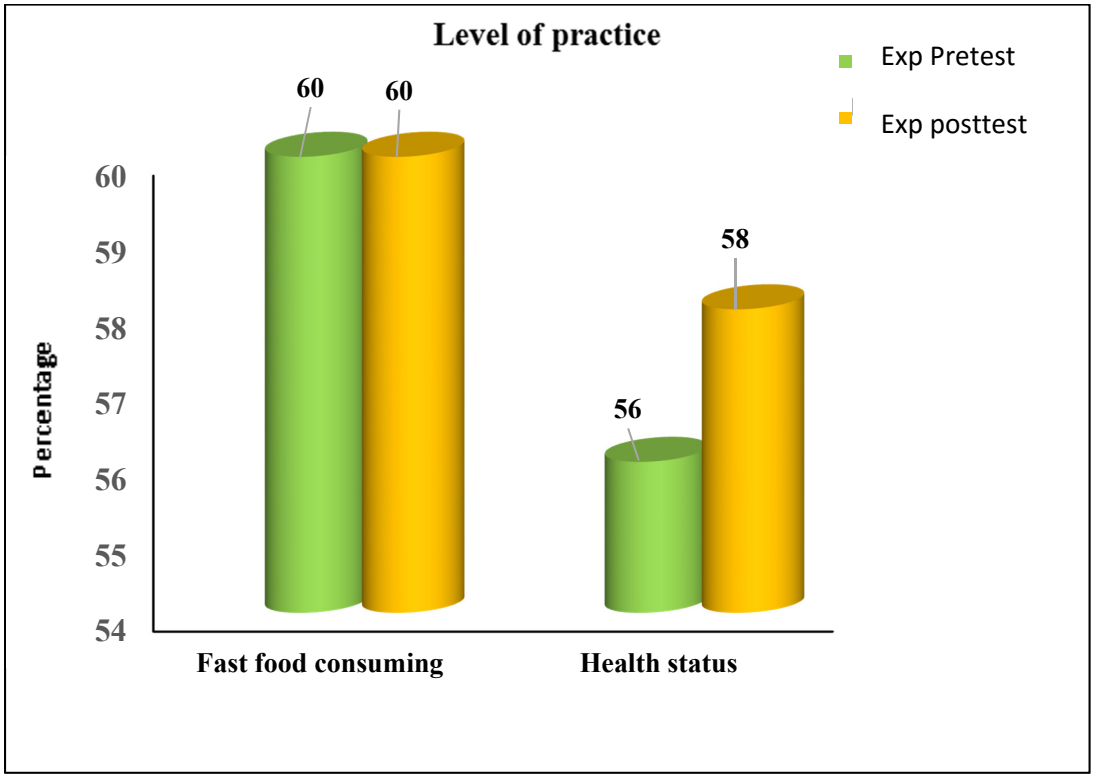


Figure: 4.1.D: Displays mean percentage pre and post- test score experimental group practice level of video assisted teaching program regarding fast food related health hazards.

The results shows that the pre-test fast food consuming mean percentage 60 % same level in the post-test mean percentage 60%. Health status mean percentage 56% pre-test score lower than the post-test score mean percentage 58%.

Figure -4.1.E:Mean, SD and mean percentage pre-test score between control and experimental group knowledge level regarding fast food related health hazards among adolescent boys from selected schools at Madurai

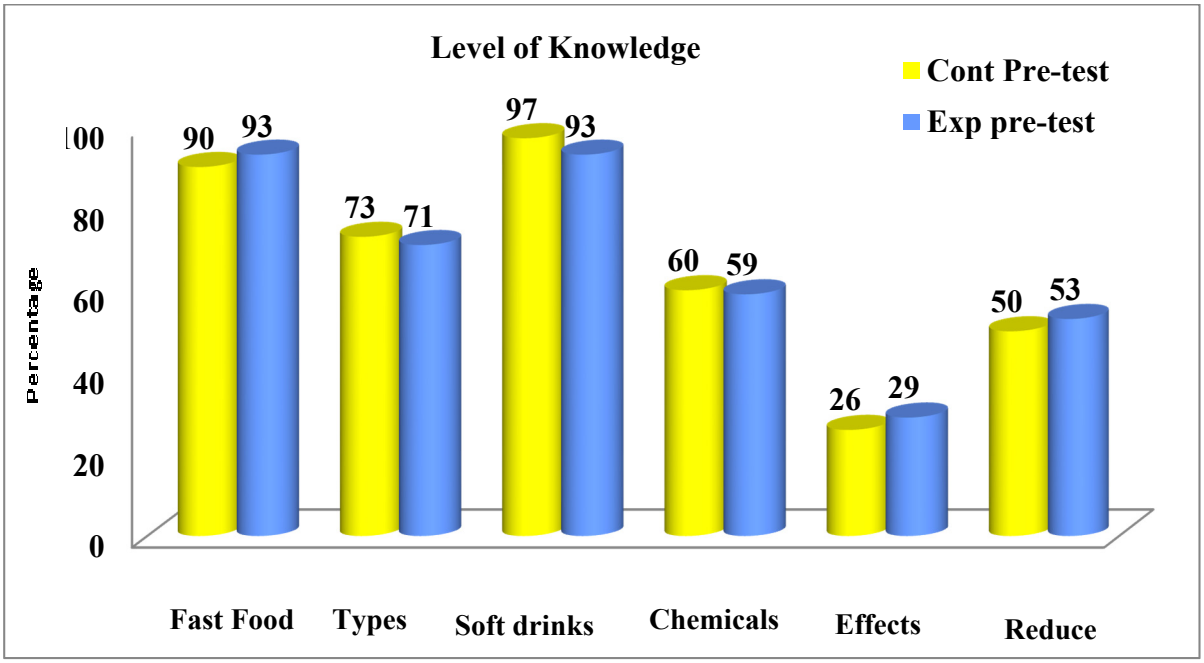


Figure: 4.1.E: Displays the mean percentage pre-test score between control and experimental group knowledge level regarding fast food related health hazards. The results shows that definition of pre-test in control group mean percentage 90 % lower than the pre-test in experimental group mean percentage 93%.Fast food items pre-test in control group mean percentage 73% higher than the pre-test in experimental group score mean percentage 71%. Soft drink storage pre-test in control group mean percentage 97% lower than the pre-test in experimental group mean percentage 93%.Chemical in fast food pre-test in control group mean percentage 60% higher than pre-test in experimental group mean percentage 59%. For effects of fast food pre-test in control group mean percentage 26% lower than pre-test in experimental group, mean percentage 29%.For helps to avoid fast food pre-test in control group mean percentage50% lower than pre-test in experimental group mean percentage 53%.

Figure -4.1.F:Mean, SD and mean percentage pre-test score between control and experimental group practice level regarding fast food related health hazards among adolescent boys from selected schools at Madurai

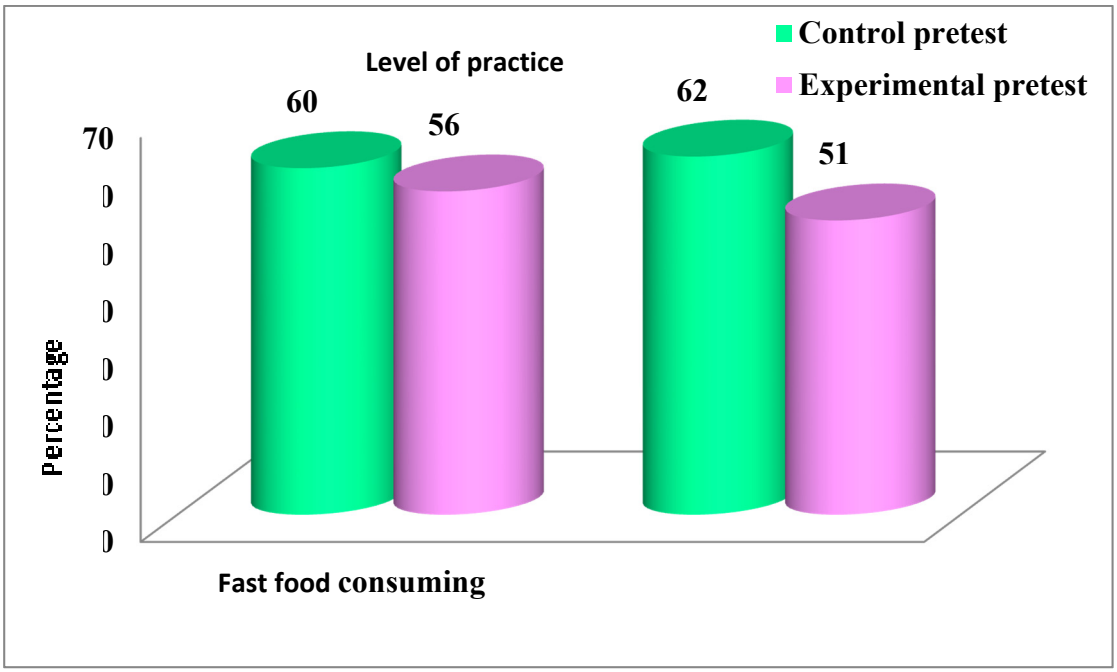


Figure: 4.1.F: Display mean percentage pre-test score between control and experimental group practice level regarding fast food related health hazards. The results shows that the pre-test mean percentage in control group 60% lower than the pre-test percentage in experimental group 62%. For health status pre-test mean percentage in control group 56% higher than pre-test, mean percentage in experimental group 51%.

Figure 4.1.G: Mean, SD and mean percentage post – test score between control and experimental group knowledge level of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai

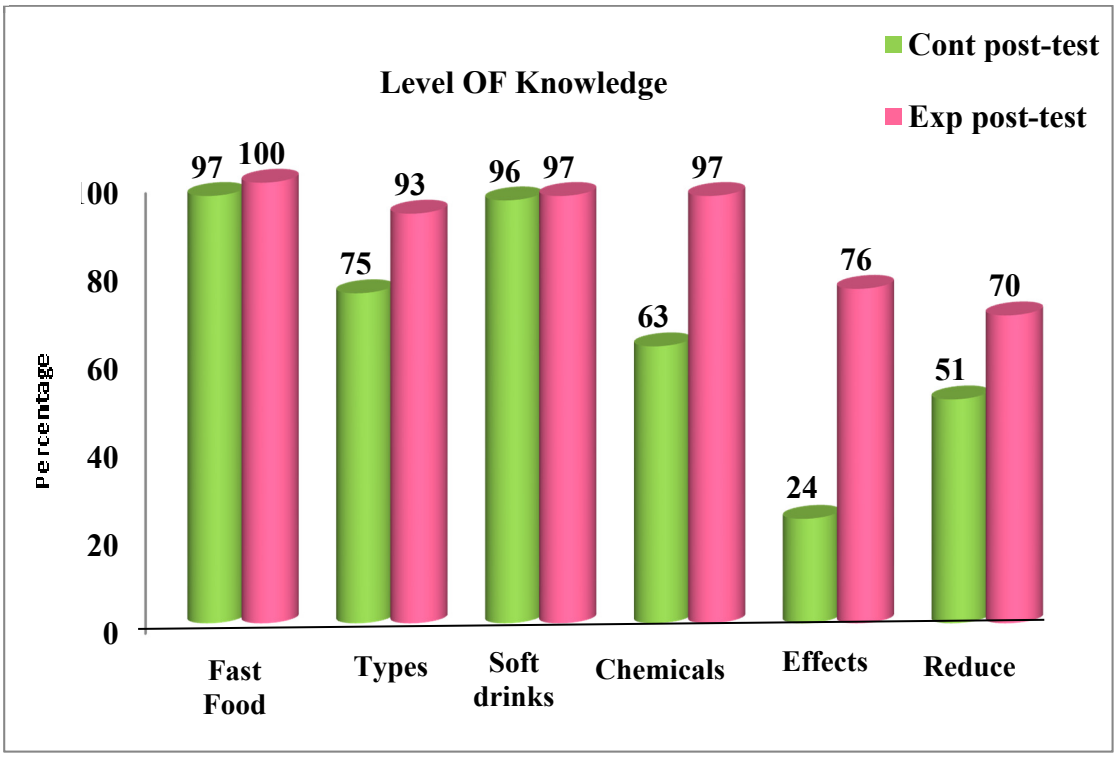


Figure 4.1.G:. Mean percentage post – test score between control and experimental group knowledge level of video assisted teaching program regarding fast food related health hazards. The results shows that the post-test mean percentage for control group definition is 97% lower than the post-test mean percentage in experimental group 100%. For fast food items post-test mean percentage in control group 75% post-test mean percentage lower than the post-test mean score in experimental group 93%.For soft drink storage post-test, mean percentage in control group 96% lower than the post-test, mean percentage in experimental group 97%.For chemical in fast food post-test mean percentage in control group 63%.lower than posttest mean percentage in experimental group 97%.. For effects of fast food post-test mean percentage in control group 24% lower than post-test mean percentage in experimental group 76%.For helps to avoid fast food posttest mean percentage in control group 51%lower than post-test mean percentage in experimental group 70%.

Figure 4.1.H: Mean, SD and mean percentage post – test score between control and experimental group practice level of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai

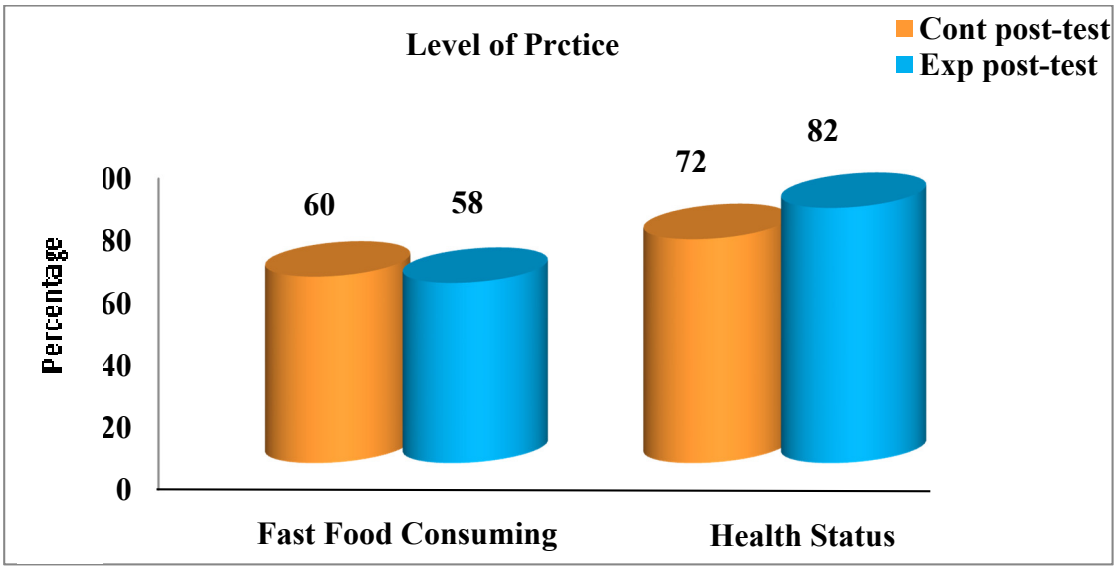


Figure 4.1.H: Mean percentage post – test score between control and experimental group practice level of video assisted teaching program regarding fast food related health hazards.. The results shows that the post-test mean percentage in control group 60% lower than the post-test mean percentage in experimental group 72%. For health status post-test men percentage in control group 58% lower than post-test, mean percentage in experimental group 82%.

Figure 4.1.I: Frequency and percentage wise distribution to evaluate control and experimental group the level of knowledge regarding fast food related health hazards among adolescent boys from selected schools at Madurai

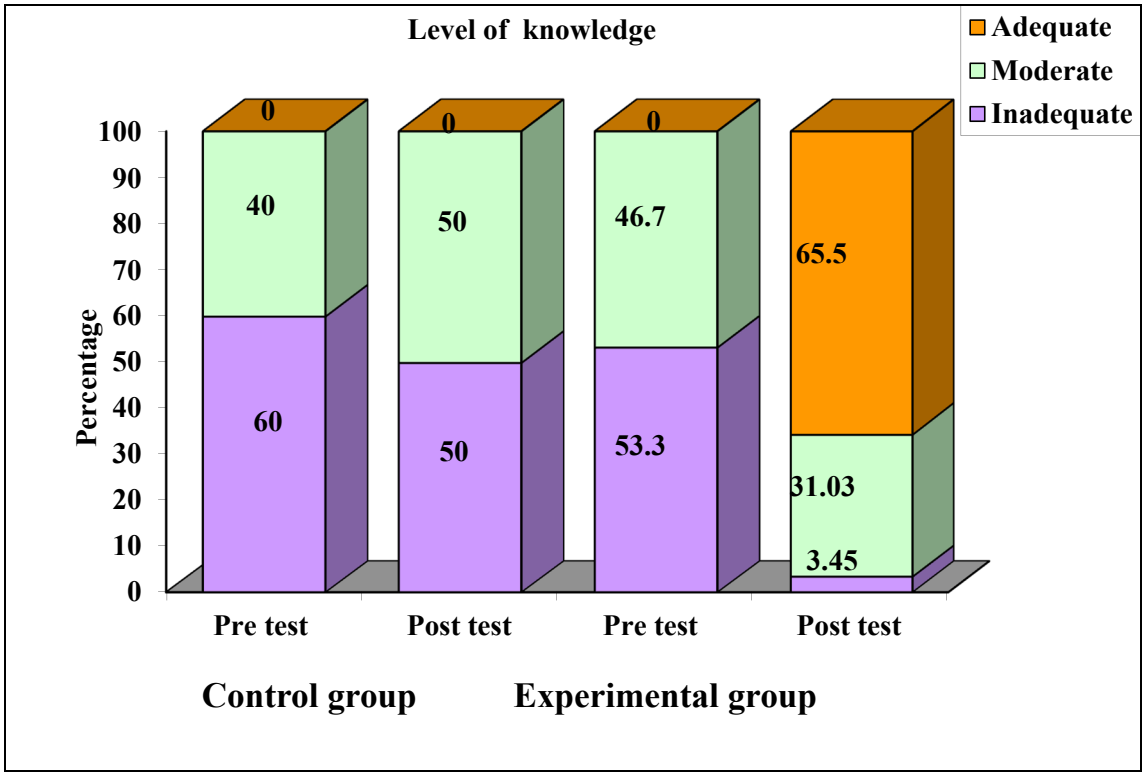


Figure 4.1.I: The shows that the frequency and percentage wise distribution evaluate the level of knowledge regarding fast food related health hazards among adolescent boys in control and experimental group. In control group pre-test test revealed that 60% (18) and post-test revealed that 50% (15) Subject had inadequate knowledge regarding fast food related health hazards.in control group pre-test revealed that 40% (12) and post-test had 50%(15) subject had a moderate knowledge. In experimental group pre-test 53.3 %(16) and post-test 3.45% (1) that subject had inadequate knowledge. Moderate level of knowledge pre-test 46.7% (16) and post-test 31.03% (9) adequate level of knowledge the subject had 65.5 %(19)

Figure 4.1.J: Frequency and percentage wise distribution to evaluate control and experimental group the level of practice regarding fast food related health hazards among adolescent boys from selected schools at Madurai.

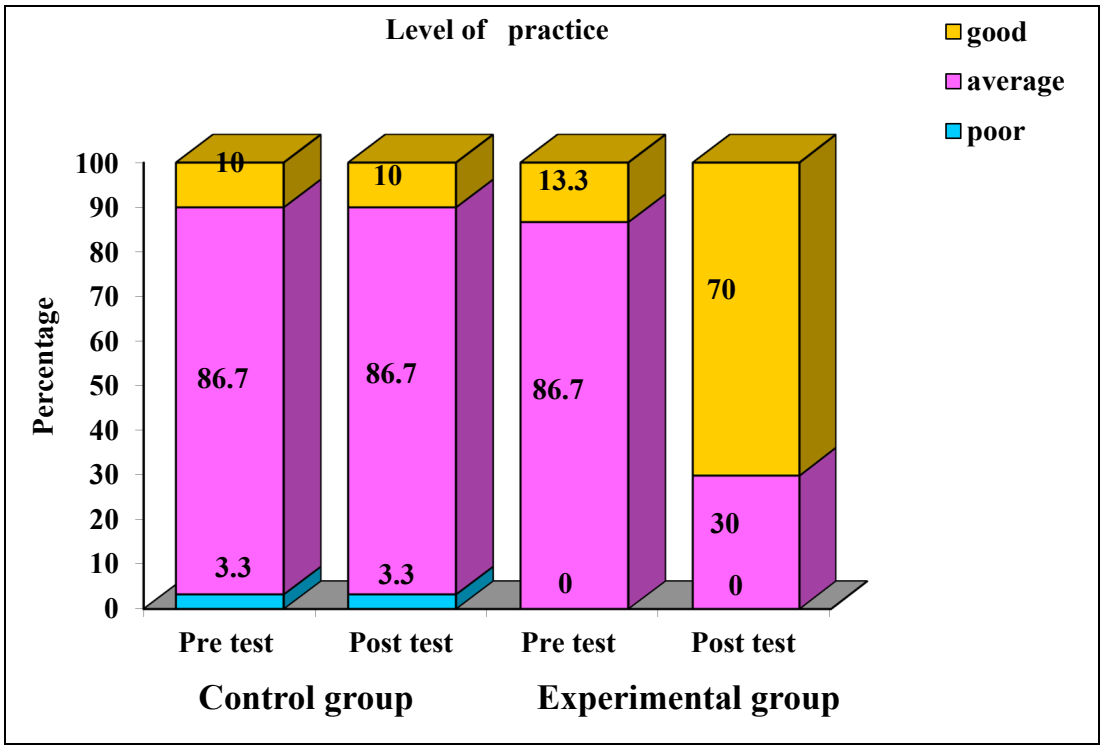


Figure 4.1.J: The shows that the frequency and percentage wise distribution evaluate the level of practice regarding fast food related health hazards among adolescent boys in control and experimental group. In control group pre-test test revealed that 3.3% (1) and post-test revealed that 3.3% (1) Subject had poor level of practice regarding fast food related health hazards.in control group pre-test revealed that 86.7% (26) and post-test had 86.7% (26) subject had a average level of practice.in control group pre-test 10% (3) and post-test score 10 (3) had good level of practice

In experimental group pre-test 86.7% (26) and post-test, 30% (9) that subject had average level of practice. Good level of practice pre-test 13.3% (4) and post-test 70 %(27). In experimental group, none of them had poor level of practice.

SECTION - III

Table-4.2.1: Paired 't'-test was found in experimental group pre and post-test score to evaluate the effectiveness of video assisted teaching program on knowledge regarding fast food related health hazards among adolescent boys from selected schools at Madurai

Area	Experimental pre test		Experimental post test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Definition	0.93	0.25	1	0	0.07	1.44	0.161
Fast food items	2.83	0.83	3.7	0.72	0.77	3.43	0.001**
Soft drink storage	0.93	0.25	0.97	0.46	0.23	2.54	0.01*
Chemicals in fast food	2.37	0.89	3.87	2.12	1.5	3.46	0.001**
Effect of fast food	2.63	1.45	6.83	1.51	4.2	10.29	P<0.001***
Helps to avoid fast food	0.53	0.51	0.7	0.47	0.17	1.22	0.231
Overall	10.23	1.91	16.7	3.64	6.46	8.58	P<0.001***

*-P<0.05, significant and **-P<0.01 &***-P<0.001, highly significant

Table-4.2.1: paired 't'-test was found in experimental group to evaluate the effectiveness of video assisted teaching program on knowledge regarding fast food related health hazards among adolescent boys .

In experimental group mean pre-test score for definition 0.93(SD=0.25) and post-test score was 1(SD=0) the obtained t value is 1.44 and the p value 0.161 which is not statistically significant level at p <0.001..Fast food items pre-test score 2.83 (SD=0.83) and post-test score 3.7 (SD=0.72) t value 3.43 p value 0.001, which is

statistically significant level at p<0.001.Soft drink storage pre-test score 0.93(SD=0.25) and post-test score0.97 (SD=0.46) t value 2.54 p value 0.01, which is statistically significant level at p<0.001.Chemicals in fast food pre-test score2.37 (SD=0.89), post-test score 3.87SD=2.12) t value, 3.46 and p value 0.001. Which is statistically significant level at p<0.001. Effects of fast food in pre-test score2.63 (SD=1.45) and post- test score 6.83(SD=1.51), t value10.29, p value p<0.001 which is highly significant. Helps to avoid fast food in pre-test score0.53 (SD=0.51) and post-test score0.7 (SD=0.47), t value 1.22, p value 0.231. Over all experimental group pre-test score 10.23(SD=1.91) and post-test score 16.7(SD=3.64) t value 8.58. p value. P<0.001 which is highly significant.

Table-4.2.2: Paired 't'-test was found in experimental group pre and post-test score to evaluate the effectiveness of video assisted teaching program on practice regarding fast food related health hazards among adolescent boys from selected schools at Madurai

Area	Experimental pre test		Experimental post test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Fast food consuming	16.7	2.45	19.43	2.27	2.73	4.62	P<0.001***
Health status	9.17	2.64	14.67	2.83	5.5	8.99	p<0.001***
Overall	25.87	3.99	34.1	4.03	8.23	8.25	p<0.001***

*-P<0.05, significant and **-P<0.01 &***-P<0.001, highly significant

Table-4.2.2: paired 't'-test was found in experimental group to evaluate the effectiveness of video assisted teaching program on practice regarding fast food related health hazards among adolescent boys.

In experimental group mean pre-test score for fast food consuming 16.7(SD=2.45) and post-test score in experimental group was 19.43(SD=2.27) the obtained t value is 4.62 and the p value p<0.001 which is statistically significant value is p<0.001. Health status pre-test score 9.17(SD=2.64) and post-test score in experimental group 14.67 (SD=2.83) t value 8.99 p value p<0.001.Which is statistically significant value is p<0.001.over all experimental group pre-test score 25.87(SD=3.99), post-test score 34.1(SD=4.03) t value 8.25 p value p<0.001 which is statistically significant value is p<0.001.

Table-4.2.3: Unpaired 't'-test was found in pre-test score knowledge level between control and experimental group regarding fast food related health hazards among adolescent boys from selected schools at Madurai

Area	Control pre test		Experimental pre test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Definition	0.9	0.25	0.93	0.25	0	0	1
Fast food items	2.9	0.67	2.83	0.83	0.07	0.34	0.73
Soft drink storage	0.97	0.18	0.93	0.25	0.03	0.58	0.51
Chemicals in fast food	2.4	0.86	2.37	0.89	0.03	0.147	0.883
Effect of fast food	2.37	1.59	2.63	1.45	0.27	0.67	0.49
Helps to avoid fast food	0.5	0.51	0.53	0.51	0.03	0.254	0.801
Overall	10.07	1.87	10.23	1.91	0.17	0.34	0.734

*-P<0.05, significant and **-P<0.01 &***-P<0.001, highly significant

Table-4.2.3:depicted that**,** unpaired 't'-test was found in pre-test between control and experimental group to evaluate the effectiveness of video assisted teaching program on knowledge regarding fast food related health hazards among adolescent boys.

In control group mean pre-test score for definition 0.9(SD=0.25) and pre-test score in experimental group was 0.93(SD=0.25) the obtained t value is 0, and the p value 1 .which is not statistically significant level at p<0.001. Fast food items pre-test score in control group is 2.9 (SD=0.67) and pre-test score in experimental group 2.83 (SD=0.83) t value is 0.34 p value 0.73, which is not statistically significant level at p<0.001.Soft drink storage in control group pre-test score 0.97(SD=0.18) and

pre-test score in experimental group 0.93(SD=0.25),t value is 0.58 p value 0.51, which is not statistically significant level at p<0.001.chemicals in fast food control group pre-test score is 2.4(SD=0.86), pre-test score in experimental group 2.37 (SD=0.89), t value is0.147 and p value 0.883. Effects of fast food in control group pre-test score2.37 (SD=1.59) and pre-test score in experimental group 2.63(SD=1.45), t value is 0.67 p value 0.49.Which is not statistically significant level at p<0.001. Helps to avoid fast food in control group pretest score is 0.5 (SD=0.51) and pre-test score in experimental group 0.53(SD=0.51), t value is 0.254 p value 0.801.Which is not statistically significant level at p<0.001. Over all control group pre-test score 10.07(SD=1.87) and pre-test score in experimental group 10.23(SD=1.91) t value is 0.34 p value 0.734which is not statistically significant level at p<0.001.

Table-4.2.4: Unpaired 't'-test was found in post-test score knowledge level between control and experimental group to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai

Area	Control post test		Experimental post test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Definition	0.97	0.18	1	0	0.03	1	0.325
Fast food items	3.00	0.72	3.7	0.72	0.7	1.65	0.065
Soft drink storage	0.96	0.41	0.97	0.46	0.01	1	0.325
Chemicals in fast food	2.5	0.86	3.87	2.12	0.8	1.91	0.04*
Effect of fast food	2.17	1.41	6.83	1.51	4.67	12.34	P<0.001***
Helps to avoid fast food	0.51	0.47	0.7	0.47	0.37	3.00	0.003**
Overall	10.37	1.82	16.7	3.64	6.333	8.515	P<0.001***

*-P<0.05, significant and **-P<0.01 &***-P<0.001, highly significant

Table-4.2.4: Depicted that, unpaired 't'-test was found in post-test between control group and experimental group to evaluate the effectiveness of video assisted teaching program on knowledge regarding fast food related health hazards among adolescent boys.

In control group mean post-test score for definition 0.97(SD=0.18) and post-test score in experimental group was 1 (SD=0) the obtained t value is 1 and the p value 0.325 which is not statistically significant level at p<0.001. For fast food items in control group posttest score is 3.00 (SD=0.72) and posttest score in

experimental group 3.7 (SD=0.72) t value is 1.65 p value is 0.065 which is not statistically significant level at p<0.001. Soft drink storage control group post-test score is 0.96(SD=0.41) and post-test score in experimental group 0.97(SD=0.46) t value 1p value 0.325, which is not statistically significant level at p<0.001. Chemicals in fast food post-test score in control group 2.5(SD=0.86), post-test score in experimental group 3.87SD=2.12) t value is 1.91 and p value is 0.04. Which is statistically significant level at p <0.05. Effects of fast food in post-test score in control group 2.17 (SD=1.41) and post-test score in experimental group 6.83(SD=1.51), t value is 12.43, p value is p<0.001, which is statistically significant level at p <0.001. Helps to avoid fast food in post-test score in control group 0.51 (SD=0.47) and post-test score in experimental group 0.7(SD=0.47), t value is 3.00 p value is 0.003. Which is statistically significant level at p <0.05. Over all control group post-test score 10.37(SD=1.82) and post-test score in experimental group 16.7(SD=3.64) t value is 8.515 p value is P<0.001, which is statistically significant level at p<0.001.

Table-4.2.5: Unpaired 't'-test was found in pre-test score practice level between control and experimental group regarding fast food related health hazards among adolescent boys from selected schools at Madurai

Area	Control pre test		Experimental pre test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Fast food consuming	16.1	2.24	16.7	2.45	**0.6**	**0.98**	**0.327**
Health status	10.1	2.17	9.17	2.64	**0.93**	**1.49**	**0.14**
Overall	26.2	3.94	25.87	3.99	0.33	0.32	**0.746**

*-P<0.05, significant and **-P<0.01 &***-P<0.001, highly significant

Table-4.2.5:depicted that, unpaired 't'-test was found in pre-test between control and experimental group on practice regarding fast food related health hazards among adolescent boys.

In control group mean pre-test score for fast food consuming 16.1(SD=2.24) and experimental pre-test score was 16.7(SD=2.45) the obtained t value is 0.98 and the p value is 0.327 which is not statistically significant level at p<0.001. For health status pre-test score 10.1(SD=2.17) and experimental pre-test score was 9.17 (SD=2.64) t value 1.49 p value is 0.14. Over all control group pre-test score 26.2(SD=3.94), experimental pre-test score was 25.87(SD=3.99) t value is 0.32 p value is 0.746 which is not statistically significant level at p<0.001.

Table-4.2.6: Unpaired 't'-test was found in post-test score practice level between control and experimental group to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys from selected schools at Madurai

Area	Control post test		Experimental post test		Mean difference	't'-value	P-value
	Mean	SD	Mean	SD			
Fast food consuming	16.27	2.38	19.43	2.27	3.17	5.28	**p<0.001*** **
Health status	10.43	2.37	14.67	2.83	4.23	6.27	**P<0.001*** **
Overall	26.7	4.08	34.1	4.03	7.4	7.07	**P<0.001*** **

*-P<0.05, significant and **-P<0.01 &***-P<0.001, highly significant

Table-4.2.6: depicted that**,** unpaired 't'-test was found in post-test between control and experimental group to evaluate the effectiveness of video assisted teaching program on practice regarding fast food related health hazards among adolescent boys.

In control group mean post-test score for fast food consuming 16.27(SD=2.38) and experimental post-test score was 19.43(SD=2.27) the obtained t value is 5.28 and the p value is p<0.001 which is statistically significant level at p<0.001. For health status post-test score in control group 10.43(SD=2.37) and post-test score in experimental group 14.67 (SD=2.83.) The obtained t value is 6.27 p value is p<0.001.Which is statistically significant level at p<0.001.over all control group post-test score 26.7(SD=4.08), post-test score in experimental group 34.1(SD=4.03) t value 7.07 p value p<0.001. Which is statistically significant level at p<0.001.

SECTION – IV

Table No 4.3.1: Correlation between knowledge and practice in control and experimental group regarding fast food related health hazards among adolescent boys.

Variables	Control group				Experimental group			
	Pre test		Post test		Pre test		Post test	
	'r'-value	p-value	'r'-value	p-value	'r'-value	p-value	'r'-value	p-value
knowledge and practice	0.282	0.13	0.01	0.916	-0.05	0.792	0.681	P<0.001***

*p<0.05 significant. **p<0.01 & ***p<0.001 highly significant

Table 4.3.1depicts that, correlation between knowledge and practice regarding fast food related health hazards among adolescent boys.

In control group pretest value is (r= 0.282), p value (p= 0.13), post-test value is (r = 0.01), p value (p =0.916).in experimental group pretest value is (r =-0.05), and p value is (p = 0.792) and posttest value is (r =0.681), p value (p<0.001). Which is statistically significant level at p<0.001.

SECTION - V

Table No 4.4.1: Association between pre-test score levels of knowledge in control group with their selected demographic variables.

Demographic variables	Inadequate		Moderate		$\chi 2$ (df)	p-value (N/NS)
	f	%	f	%		
1.Age (in years):						
a. 13 years	6	20	4	13.3		
b.14 years	6	20	4	13.3	0.1	0.98
c. 15 years	3	10	2	6.7	(df=1)	NS
d.16 years	3	10	2	6.7		
2.Religion :						
a. Hindu	15	50	12	40		
b. Muslim	0	0	0	0	2.22	0.136
c. Christian	3	10	0	0	(df=1)	NS
d. Others	0	0	0	0		
3. Type of family :						
a. Joint	3	10	4	13.3	1.12	0.290
b. Nuclear	15	50	8	26.7	(df=1)	NS
4.Educational status :						
a. 8th STD	6	20	3	10	0.64	0.725
b. 9TH STD	7	23.3	4	13.3	(df=2)	NS
c. 10TH STD	5	16.7	5	16.7		
5.Number of siblings :						
a. 0	2	6.7	1	3.3		
b. 1	8	26.7	4	13.3	1.29	0.730
c. 2	4	13.3	5	16.7	(df=3)	NS
d. Above2	4	13.3	2	6.7		
6.Dietary pattern :						
a. Vegetarian	0	0	2	6.7	3.21	0.073
b. Non vegetarian	18	60	10	33.3	(df=3)	NS
7.Family income monthly :						
a. <3000	11	36.7	9	30		
b. 3000-6000	3	10	2	6.7	1.25	0.741
c. 6000-10000	3	10	1	3.3	(df=3)	NS
d. >10000	1	3.3	0	0		

Demographic variables	Inadequate		Moderate		χ2 (df)	p-value (N/NS
	f	%	f	%		
8.Place of residence :						
a. Rural	16	53.3	10	33.3	0.91	0.661
b. Urban	2	6.7	2	6.7	(df=1)	NS
9.Source of information :						
a. Magazine	0	0	0	0		
b. Media	17	56.7	11	36.7	0.083	0.765
c. Peer group	1	3.3	1	3.3	(df=1)	NS
d. Health care professional	0	0	0	0		
e. Social workers	0	0	0	0		
10.BMI :						
a. Normal (18.5 -24.9)	7	23.3	2	6.7		
b. Over weight (25.0 – 29.9)	9	30	9	30	1.99	0.370
c. Class I Obese (30.0 – 34.9)	2	6.7	1	3.3	(df=2)	NS
d. Class II Obese(35.0 – 39.9)	0	0	0	0		
e. Class III Obese (above 40.0)	0	0	0	0		
11.Fast food consuming since childhood :						
a. Yes	0	0	12	40	1.55	0.213
b. No	18	60	0	0	(df=2)	NS
12.Reason to choose fast food :						
a. Convenience	0	0	0	0		
b. Taste	0	0	11	36.7	2.84	0.242
c. Attractive	0	0	1	3.3	(df=2)	NS
13.Residing:						
a. With parents	0	0	0	0		
b. With relatives	0	0	0	0	0	1
c. At Hostel	13	60	12	40	(df=1)	NS

Table 4.4.1: shows that there is no significant association between level of knowledge in control group of pre-test and Selected Demographic variables.

Table No 4.4.2: Association between pre-test score levels of knowledge in experimental group with their selected demographic variables.

Demographic variables	Inadequate		Moderate		$\chi 2$ (df)	p-value (N/NS)
	f	%	f	%		
1.Age (in years):						
a. 13 years	5	16.7	4	13.3		
b. 14 years	6	20	4	13.3	0.71	0.87
c. 15 years	4	13.3	4	13.3	(df=1)	NS
d. 16 years	1	3.3	2	6.7		
2.Religion :						
a. Hindu	15	50	11	36.7		
b. Muslim	1	3.3	0	0	4.50	0.106
c. Christian	0	0	0	0	(df=8)	NS
d. Others	0	0	0	0		
3. Type of family :						
a. Joint	5	16.7	3	10	0.36	0.544
b. Nuclear	11	36.7	11	36.7	(df=1)	NS
4.Educational status :						
a. 8th STD	10	33.3	7	23.3	0.475	0.491
b. 9TH STD	0	0	0	0	(df=1)	NS
c. 10TH STD	6	20	7	23.3		
5.Number of siblings :						
a. 0	1	3.3	1	3.3		
b. 1	5	16.7	5	16.7	0.76	0.858
c. 2	8	26.7	5	16.7	(df=3)	NS
d. Above2	2	6.7	3	10		
6.Dietary pattern :						
a. Vegetarian	2	6.7	0	0	1.85	0.171
b. Non vegetarian	14	46.7	14	46.7	(df=1)	NS
7.Family income monthly :						
a. <3000	5	16.7	3	10		
b. 3000-6000	6	20	10	3.3	4.05	0.132
c. 6000-10000	5	16.7	1	3.3	(df=2)	NS
d. >10000	0	0	0	0		

Demographic variables	Inadequate		Moderate		$\chi 2$ (df)	p-value (N/NS)
	f	%	f	%		
8.Place of residence :						
a. Rural	13	43.3	11	36.7	0.03	0.855
b. Urban	3	10	3	10	(df=1)	NS
9.Source of information :						
a. Magazine	2	6.7	1	3.3		
b. Media	12	40	9	30	3.44	0.328
c. Peer group	1	3.3	4	13.3	(df=3)	NS
d. Health care professional	1	3.3	0	0		
e. Social workers	0	0	0	0		
10.BMI :						
a. Normal (18.5 -24.9)	6	20	4	13.3		
b. Over weight (25.0 – 29.9)	8	26.7	8	26.7	0.26	0.875
c. Class I Obese (30.0 – 34.9)	2	6.7	2	6.7	(df=2)	NS
d. Class II Obese(35.0 – 39.9)	0	0	0	0		
e. Class III Obese (above 40.0)	0	0	0	0		
11.Fast food consuming since childhood :						
a. Yes	0	0	14	46.7	0	1
b. No	16	53.3	0	0	(df=1)	NS
12.Reason to choose fast food :						
a. Convenience	0	0	3	10		
b. Taste	0	0	7	23.3	1.21	0.546
c. Attractive	0	0	4	13.3	(df=2)	NS
13.Residing:						
a. With parents	12	40	13	43.3		
b. With relatives	4	13.3	1	3.3	1.71	0.190
c. At Hostel	0	0	0	0	(df=1)	NS

P<0.05 significant

Table 4.4.2: Shows that there is no significant association between level of knowledge in experimental group of pre-test and Selected Demographic variables.

Table No 4.4.3: Association between pre-test score levels of practice in control group with their selected demographic variables.

Demographic variables	Poor		Average		Good		$\chi 2$ (df)	p-value (N/NS)
	f	%	f	%	f	%		
1.Age (in years):								
a. 13 years	0	0	7	23.3	3	10		
b. 14 years	0	0	10	33.3	0	0	11.65	0.07
c. 15 years	1	3.3	4	13.3	0	0	(df=6)	NS
d. 16 years	0	0	5	16.7	0	0		
2.Religion :								
a. Hindu	0	0	25	83.3	2	6.7		
b. Muslim	0	0	0	0	0	0	11.90	0.003*
c. Christian	1	3.3	1	3.3	1	3.3	(df=2)	S
d. Others	0	0	0	0	0	0		
3. Type of family :								
a. Joint	0	0	6	20	1	3.3	0.47	0.789
b. Nuclear	1	3.3	20	66.7	2	6.7	(df=2)	NS
4.Educational status :								
a. 8th STD	0	0	6	20	3	10	9.65	0.047*
b. 9TH STD	0	0	11	36.7	0	0	(df=4)	S
c.10TH STD	1	3.3	9	30	0	0		
5.Number of siblings :								
a. 0	0	0	2	6.7	1	3.3		
b. 1	1	3.3	10	33.3	1	3.3	4.06	0.669
c. 2	0	0	8	26.7	1	3.3	(df=6)	NS
d. Above2	0	0	6	20	0	0		
6.Dietary pattern :								
a. Vegetarian	0	0	2	6.7	0	0	0.33	0.848
b. Non vegetarian	1	3.3	24	80	3	10	(df=2)	NS
7.Family income monthly :								
a. <3000	0	0	18	60	2	6.7		
b. 3000-6000	0	0	4	13.3	1	3.3	7.63	0.266
c. 6000-10000	1	3.3	3	10	0	0	(df=6)	NS
d. >10000	0	0	1	3.3	0	0		

Demographic variables	Poor		Average		Good		χ2 (df)	p-value (N/NS)
	f	%	f	%	f	%		
8. Place of residence :								
a. Rural	1	3.3	22	73.3	3	10	0.71	0.701
b. Urban	0	0	4	13.3	0	0	(df=2)	NS
9.Source of information :								
a. Magazine	0	0	0	0	0	0		
b. Media	0	0	25	83.3	3	10	14.54	0.001**
c. Peer group	1	3.3	1	3.3	0	0	(df=2)	S
d. Health care professional	0	0	0	0	0	0		
e. Social workers	0	0	0	0	0	0		
10.BMI :								
a. Normal (18.5 – 24.9)	1	3.3	7	23.3	1	3.3		
b. Over weight (25.0 – 29.9)	0	0	17	56.7	1	3.3	4.67	0.322
c. Class I Obese (30.0 – 34.9)	0	0	2	6.7	1	3.3	(df=4)	NS
d. Class II Obese (35.0 – 39.9)	0	0	0	0	0	0		
e. Class III Obese (above 40.0)	0	0	0	0	0	0		
11.Fast food consuming since childhood :								
a. Yes	0	0	26	86.6	3	10	0.16	0.924
b. No	1	3.3	0	0	0	0	(df=2)	NS
12.Reason to choose fast food :								
a. Convenience	0	0	2	6.7	0	0	0.512	0.972
b. Taste	0	0	23	76.7	3	10	(df=4)	NS
c. Attractive	0	0	1	3.3	0	0		
13.Residing:								
a. With parents	0	0	0	0	0	0	0	1
b. With relatives	0	0	0	0	0	0	(df=1)	NS
c. At Hostel	1	3.3	26	86.7	3	10		

Table No: 4.4.3: Shows that there is a significant association between pre-test level of practice between control group with their demographical variables, (religion $p<0.003$, educational status $p<0.047$, source of information $p<0.001$).

Table No 4.4.4: Association between pre-test score levels of practice in experimental group with their selected demographic variables.

Demographic variables	Average		Good		$\chi 2$ (df)	p-value (N/NS)
	f	%	f	%		
1.Age (in years):						
a. 13 years	5	16.7	4	13.3		
b. 14 years	10	33.3	0	0	10.76	0.013*
c. 15 years	8	26.7	0	0	(df=3)	S
d. 16 years	3	10	0	0		
2.Religion :						
a. Hindu	23	76.7	3	10		
b. Muslim	1	3.3	0	0	1.26	0.531
c. Christian	2	6.7	1	3.3	(df=2)	NS
d. Others	0	0	0	0		
3. Type of family :						
a. Joint	7	23.3	1	3.3	0.006	0.935
b. Nuclear	19	63.3	3	10	(df=1)	NS
4.Educational status :						
a. 8^{th} STD	13	43.3	4	13.3	3.53 (df=1)	0.060 NS
b. 9^{TH} STD	0	0	0	0		
c. 10^{TH} STD	13	43.3	0	0		
5.Number of siblings :						
a. 0	2	6.7	0	0		
b. 1	8	26.7	2	6.7	1.24	0.743
c. 2	12	40	1	3.3	(df=3)	NS
d. Above2	4	13.3	1	3.3		
6.Dietary pattern :						
a. Vegetarian	1	3.3	1	3.3	2.49	0.114
b. Non vegetarian	25	83.3	3	10	(df=1)	NS
7.Family income monthly :						
a. <3000	7	23.3	1	3.3		
b. 3000-6000	13	43.3	3	10	1.33	0.513
c. 6000-10000	6	20	0	0	(df=2)	NS
d. >10000	0	0	0	0		

Demographic variables	Average		Good		χ^2 (df)	p-value (N/NS)
	f	%	f	%		
8.Place of residence :						
a. Rural	20	66.7	4	13.3	1.15	0.283
b. Urban	6	20	0	0	(df=1)	NS
9.Source of information :						
a. Magazine	2	6.7	1	3.3		
b. Media	18	60	3	10	1.978	0.577
c. Peer group	5	16.7	0	0	(df=3)	NS
d. Health care professional	1	3.3	0	0		
e. Social workers	0	0	0	0		
10.BMI :						
a. Normal (18.5 – 24.9)	8	26.7	2	6.7		
b. Over weight (25.0 – 29.9)	14	46.7	2	6.7	1.01	0.604
c. Class I Obese (30.0 – 34.9)	4	13.3	0	0	(df=2)	NS
d. Class II Obese (35.0 – 39.9)	0	0	0	0		
e. Class III Obese (above 40.0)	0	0	0	0		
11.Fast food consuming since childhood :						
a. Yes	0	0	4	13.3	0	1
b. No	26	86.7	0	0	(df=1)	NS
12.Reason to choose fast food :						
a. Convenience	0	0	7	23.3		
b. Taste	0	0	13	43.3	3.52	0.171
c. Attractive	0	0	6	20	(df=2)	NS
13.Residing:						
a. With parents	21	70	4	13.3	0.932	0.37
b. With relatives	5	16.7	0	0	(df=1)	NS
c. At Hostel		0	0	0		

Table 4.4.4: Shows that association between pre-test levels of practice in experimental group with their demographical variables. Its age only significant association between the level practice in experimental group pre-test and their demographical variables p value <0.013.

CHAPTER – V

DISCUSSION

This chapter deals with discussion and interpretation of the findings to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys in a selected school at Madurai.

OBJECTIVE

1. To assess the pre-test and post-test knowledge and practice regarding video assisted teaching program on fast food related health hazards among adolescent boys in control and experimental group .
2. To evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in experimental group.
3. To compare the pre-test and post-test score of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys between control and experimental group.
4. To find out the co-relation between knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in control and experimental group.
5. To find out the association between pre knowledge and practice on video assisted teaching program regarding fast food related health hazards with their selected demographical variables among adolescent boys in control and experimental group.

HYPOTHESIS

H_1 – There is a significant difference between pre - test and post-test score knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in experimental group.

H_2 – There is a significant difference between the pre-test and post-test score knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in control and experimental group.

H_3 – There is a co-relation between knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys in control and experimental group.

H_4- There is a significant association between pre-test score in knowledge and practice on video assisted teaching program regarding fast food related health hazards among adolescent boys with their selected demographical variables in control and experimental group.

FREQUENCY AND PERCENTAGE WISE DISTRIBUTION OF DEMOGRAPHIC DATA

The characteristics of the demographic variables regarding the study findings revealed that among 60 adolescent boys, the majority 10 (33.3%) were in a age of 13 years and 14 years boys, than 5 (16.7%) were in an age of 15 to 16 years boys.

With regards to religion majority27 (90%) were Hindus, 3 (10%) were Christians only. With regards type of family majority 23 (76.7%) of the adolescent boys belong to nuclear family and only 7(23.3%) belong to joint family. With regards to educational status of the students the majority 9 (30 %) were in 8^{th} standards, 11 (36.7%) were in 9^{th} standards, 10^{th} standards. About dietary, pattern the majority

2 (6.7%) vegetarian and non-vegetarian 28(93.3%). With regards to family income majority20 (66.7%) below 3000, 3000 – 6000 income 5(16.7%), 6000 – 10,000 income 4(13.1%), above 10,000 1(3.3%). With regards place of residence rural 26(86.7%) and urban 4(13.3%). With regards source of information media 28 (93.3%) and peer groups 2(6.7%).

With regards reason for taking fast food convenient 2(6.7%), taste 27 (90%), attractive 1(3.3%). With regards fast food since taking child hood period 29 (96.7%) not taking 1(3.3%). With regards residing with parents 25 (83.3%), and hostel 5 (16.7%).

The First Objective was to assess the pre knowledge and practice regarding video assisted teaching program on fast food related health hazards among adolescent boys on control and experimental group.

The study findings revealed that among 60 adolescent boys, had inadequate knowledge more than 75%, moderate knowledge 51 – 75%, adequate knowledge less than 50% and practice good practice more than 66%, average 34 – 66%, poor – 33%

This study was support **SaoPaulo, 2012 at Brazil**, assess the knowledge and practice of fast food consumption among adolescent boys. .Results**:-** The study included males 83 (51.9%) and females 77(48.1%) respectively. Practice of fast food consumption among the study participants in this study 15(9.4%) of the participants reported that they eat fast food regularly and 115(71.8%) reported that sometimes they had fast food. Based on frequency of fast food consumption.67 (41.9%) reported once in a month and the majority of the participants 100(62.2%) eat a medium amount of fast food and 83(51.9%) reported they drank soft drinks. The majority of the respondents 116(72.5%) reported that the main reason to have fast food was its

delicious taste. Describes that 51(31.87%) of participant had inadequate knowledge, 67(41.88%) of the participants had moderate knowledge and42 (26.2%) of the participates had a adequate knowledge. Out of 77 females, 12(15.6%) had inadequate knowledge, 40(51.9%) had moderate knowledge and 25(32.5) that adequate knowledge.

The Second Objective was to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in experimental group.

The study findings revealed that overall mean value of the pre – test score 10.23 and post- test score 16.7 and the obtained mean difference 6.46. This confirms the video assisted teaching program was effective. H1 – there was video assisted program effective between the pre-test score and posttest scores of adolescent boys regarding fast food related health hazards. Hence, the research hypothesis (H1) is accepted.

This study was supported Shaba **Devi supkota, 2018**, assess the fast food consumption and patterns of consumed junk food among secondary level students. Results: The findings revealed that more girls (53.5%) consumed junk food than boys (79.6%) and those respondents were aware of the meaning of junk food. Majority of respondents (90.1%) preferred junk food for taste, is faster to prepare (44.4%), preferred as influenced by TV advertisements (15.5%), because of peer influences (31.7%) and some (29.6%) respondents preferred junk food because nothing else was available. Concerning patterns of consumed junk food all respondents (100%) consumed ‘chat-pat’ and noodles, panipuri (97.2%), doughnuts (93%), chocolates (92.3%), biscuits (95.8%), ice cream (65.5%) and cold drinks (65.5%). Only 54.2% of

respondents were aware of risks associated with poor eating habits. Conclusion: Adolescents consumed a greater amount of junk food, which led to a majority of ill effects later on. It is recommended that the school and community conduct and implement awareness program on junk food consumption and its ill effects.

This study was supported **James 2004 at England,** determined that if a school-based educational program aimed at reducing consumption of carbonated drink could prevent excessive weight gain in children. The results included a decrease in the consumption of carbonated drinks by 0.6 glasses in the intervention group, but increased by 0.2 glasses in the control group. At 12 months, the percentage of overweight and obese children increased in the control group by 7.5% compared with a decrease in the intervention group by 0.2%. The study concluded that a targeted school based educational program produced a modest reduction in the number of carbonated drinks consumed, which was associated with a reduction in the number of overweight and obese children.

The objective was to find out the association between knowledge and practice regarding fast food related health hazards with their selected demographical variables among adolescent boys.

The study findings revealed that there was association between the knowledge and practice regarding fast food related health hazards $p < 0.003$ was significant and practice $p < 0.013$ value was significant.

This study was supported **Marila Nelliyanil, 2015 at Mangluor,** Fast Food Consumption Pattern and Its Association with Overweight Among school boys. Result mean age of boys was 13.5±0.9 years. Out of 300 participants, 41(13.7%) were overweight and 8 (2.7%) were obese. 292(97.3%) were fast food users of which

42(14.4%) consumed it every day. Majority of participants were introduced to fast foods through television commercials 193(64.3%). 73(57%) developed this habit as they were bored with home food. Awareness of harmful effects of fast food consumption was known to 186(62%) students and this was found to be associated with the perceived need to control its usage ($p<0.001$). Parental consumption of fast foods was found to influence fast food consumption among children ($p=0.024$). As many as 68(22.7%) and 206(68.7%) children were not eating vegetables and fruits respectively every day. Increased frequency of fast food consumption in a week was found to be associated with overweight or obesity among children after adjusting the effects of confounders ($p=0.003$).

To find out the correlation between pre knowledge and practice regarding fast food related health hazards with their selected demographical variables among adolescent boys.

The findings shows that correlation between knowledge and practice regarding fast food related health hazards. Over all knowledge and practice r-value 0.681, p value $p< 0.001$ was highly significant.

This study was support **SaoPaulo, 2012 at Brazil**, assess the knowledge and practice of fast food consumption among adolescent boys. .Results**:-** The study included males 83 (51.9%) and females 77(48.1%) respectively. Practice of fast food consumption among the study participants in this study 15(9.4%) of the participants reported that they eat fast food regularly and 115(71.8%) reported that sometimes they had fast food. Based on frequency of fast food consumption.67 (41.9%) reported once in a month and the majority of the participants 100(62.2%) eat a medium amount of fast food and 83(51.9%) reported they drank soft drinks. The majority of the

respondents 116(72.5%) reported that the main reason to have fast food was its delicious taste. Describes that 51(31.87%) of participant had inadequate knowledge, 67(41.88%) of the participants had moderate knowledge and42 (26.2%) of the participates had a adequate knowledge. Out of 77 females, 12(15.6%) had inadequate knowledge, 40(51.9%) had moderate knowledge and 25(32.5) that adequate knowledge.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATIONS

The focus of the study to evaluate the video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys selected schools at Madurai. The research approach used in the study was quasi experimental.

SUMMARY

The study is non-randomized control group design based upon video assisted teaching program regarding fast food related health hazards. Video assisted teaching program help to make self-administered structured questions on knowledge and practice regarding fast food related health hazards. The video is prepared based on review of literature and with the help of subject experts. Reliability of the tool is elicited by using test retest method. The statistical analysis, Karl Pearson coefficient is found to be 'r' value was 0.88, which is positively correlated. Therefore, the teaching modules is found to be reliable.

A purposive sampling used to collect data from the study participants. Data is collected for a period of 6 weeks. Data collection is planned and gathered using a self-administered structured questionnaire. The data gathered is analyzed and interpreted in terms of descriptive and inferential statistics.

The main findings of the study are as follows

Among 60 adolescent boys, the majority10 (33.3%) were in the age of 13 and 14 years and 5(16.7%) were in 15 and 16 years of age. With regards to religion

majority 26 (86.7%) were Hindus, 3 (10%) were Christians and only 1 (3.3%) were Muslims. With regards type of family majority 23 (76.7%) of the adolescent boys belong to nuclear family and only 8(26.7%) belong to joint family. With regards to educational status of the students the majority 17 (56.7%) were in 8th standards, 11 (36.7%) were in 9th standards, and only 10 (33.3%) were in 10th standards. With regards number of siblings majority 12 (30%) had one siblings, 9 (30%) had two siblings, 6 (20%) had above two siblings, 3 (10%) had no siblings. With regards to dietary pattern the majority 28 (93.3%) were non-vegetarian and only 2 (6.7%) were vegetarian. With regards to family income majority 20 (66.7%) had the family income below 3000 rupees, 3000 - 6000 and only 5 (16.7%) had family income, and 6000 – 10,000 had family income 4 (13.3%) and family income above 10,000 rupees 1(3.3%). With regards to place of residence the majority 26 (86.7%) were from rural area and only 4 (13.3%) were from urban area. With regards to source of information the majority 28 (93.3%) had a information through media, 2 (6.7%) of adolescent boys got information through the peer group. With regards classification of Body Mass Index majority 18(60%) over weight of adolescent boys. Normal weight 9(30%), class I obese 3(10%). With regards fast food consuming majority in experimental group 30(100%) and no subjects in control group. With regards reason to choose fast food majority 27(90%) for taste, convenience 2(6.7%) for taking fast food, attractive 1(3.3%) for taking fast food. With regards residing majority 25 (83.3%) with parents, with relatives 5(16.7%) at hostel 30 (100%).

CONCLUSION

- The effect of video assisted teaching program regarding fast food related health hazards in the experimental group was highly significant among adolescent boys.

- Level of knowledge regarding fast food related health hazards among adolescent boys with adequate knowledge 75%, moderate knowledge 51-75%, inadequate knowledge less than 50% in experimental group.
- Level of practice regarding fast food related health hazards among adolescent boys with poor practice 33%, average practice 34 -66%, good practice more than 66% in experimental group.
- Over all paired ' t ' test was found in experimental group pre and post- test score to evaluate the effectiveness of video assisted teaching program on knowledge regarding fast food related health hazards among adolescent boys 't' value is 8.58 and p value $p<0.001$ was highly significant.
- Over all paired ' t' test was found in experimental group pre and post-test score to evaluate the effectiveness of video assisted teaching program on practice regarding fast food related health hazards among adolescent boys 't' value is 8.25 and p value $p<0.001$ was highly significant.
- Over all unpaired 't' test was found in pre-test score knowledge level between control and experimental group regarding fast food related health hazards among adolescent boys 't' value is 0.34 and p value $p<0.734$ was no significant.
- Over all unpaired 't' test was found in post-test score knowledge level between control and experimental group to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in 't' value is 8.515 and p value $p<0.001$was highly significant.
- Over all unpaired 't' test was found in pre-test score practice level between control and experimental group regarding fast food related health hazards

among adolescent boys in 't' value is 0.32 and p value p<0.746 was no significant.

- Over all unpaired 't' test was found in post-test score practice level between control and experimental group to evaluate the effectiveness of video assisted teaching program regarding fast food related health hazards among adolescent boys in 't' value 7.07 and p value p<0.001 was highly significant.
- Co-relation between knowledge and practice in control and experimental group both pre-test and post-test 't' value 0.681 and p value p<0.001 was highly significant.
- There was no significant association between pre-test levels of knowledge in control and experimental group with their selected demographic variables.
- There was significant association between pre-test levels of practice in control and experimental group with their selected demographic variables (Religion, educational status and source of information age).

IMPLICATION

The study has the following implication for nursing service, nursing administration, nursing education and nursing research.

Implication for nursing service

1. The findings suggest that nurse should increase their knowledge and practice on early identification and management regarding fast food related health hazards.
2. This study recommends that nurses should increases focus adolescent health with a view to preventing and managing regarding fast food related health hazards.

3. These findings suggest that adolescent should emphasize to increase focus on life style behavior like physical development, psychological development and social development.
4. The study emphasizes that adolescent; teachers and health care members should be taught about effectiveness regarding fast food related health hazards.

Implications for nursing administration

1. This study suggests that nurse administrators should conduct in service education for the nursing staff regarding fast food related health hazards and its management.
2. These findings will help the administrator to implement health education program regarding fast food related health hazards.
3. The findings of study emphasize the nurse administration to conduct various mass awareness program focusing fast food related health hazards among adolescent.

Implication for nursing education

1. The study enhances the nursing curriculum to provide opportunities for students to learn about fast food related health hazards.
2. The study will enable the student nurse to acquire knowledge about fast food related health hazards and its management.
3. Extensive use of mass media programs help in the knowledge improvement of fast food related health hazards.

Implication for nursing research

1. As there is prevalence of fast food related health hazards throughout the country, more research need to be conducted in the schools.
2. The association between various other determinants and fast food related health hazards can be explored.
3. The study can be published in journals to disseminate knowledge and pract**ice** regarding fast food related health hazards among adolescent boys.

Limitation

1. Limited to selected adolescent boys only.
2. Real life style fast food practice, observation was limited
3. Generalization of the study findings was limited due to sample size.

RECOMMENDATION

1. Study can be done in urban and rural hospitals and schools.
2. A similar study can be done on all students.
3. A similar study can be done on a large sample using a video assisted teaching program in school settings.
4. Study can conducted on child-to-child approach.

REFERENCES

BOOKS

1. Ashakiran, R Deepthi. Fast foods and their impact on health. Journal of Krishna Institute of Medical Sciences University. 2012; 1:7–15.
2. American Medical Association Council on Foods and Nutrition. Some nutritional aspects of sugar, candy, and sweetened carbonated beverages page no 763 -765
3. A Allamani. Addiction, risk, and resources. Subst Use Misuse. 2007; Page no :421
4. AM Printice, SA Jebb. Fast foods, energy density and obesity: a possible mechanistic link. Obesity Rev. 2003 -4 page no :187–94.
5. Bowman SA. Beverage choices of young females: changes and impact on nutrient intakes. Page no - 1234–123
6. Calderon LL, Yu CK, Jambazian P. Dieting practices in high school students. J Am Diet Assoc 2004; 104:1369.
7. Discovering food and nutrition, fourth edition, Helen Kotuku,, published to whom this text books is issued page no 70 -74
8. Food and nutrition, Dr. M. Swami Nathan, essential food nutrition , volume no I, page no 900- 905
9. Gillis LJ, Bar-Or O. Food away from home, sugar-sweetened drink consumption and juvenile obesity. Page no - 539–545.
10. Gillman MW, Rifas-Shiman SL, Frazier AL, et al. Family dinner and diet quality among older children and adolescents. Arch Fam Med 2000; 9:235.

11. Keski-Rahkonen A, Kaprio J, Rissanen A, et al. Breakfast skipping and health-compromising behaviors in adolescents and adults. Eur J Clin Nutr 2003; 57:842.
12. Lifshitz F, Tarim O, Smith MM. Nutrition in adolescence. Endocrinal Me tab Clin North Am 1993 page no, 22:673.
13. Nutrition and child development , KE Elizabeth , 4th edition , paras medical publisher, page no 104 -105
14. Nutrition learning packages, joint WHO \UNICEF nutritional support programmer, page no 43 -50
15. Nutrition and bio-chemistry, T. Rajeswari ,emesis medical publishers , first edition 2013 ,page no 1 -24
16. Nursing research generating and assessing evidence for nursing practice, Denise F.Poilt, PhD, 8th edition 2008, page no 250 – 265.
17. Nursing research for statistical, author Suresh Sharma, 8th edition, 2015, page no :245 - 260
18. Rajesh Wari R, Yang SJ, Nicklaus TA, Berenson GS. Secular trends in children's sweetened-beverage consumption. Page no - 208–214
19. Watts AW, Loth K, Berge JM, et al. No Time for Family Meals? Parenting Practices Associated with Adolescent Fruit and Vegetable Intake When Family Meals Are Not an Option. J Acad Nutr Diet 2017; 117:707.
20. Zullig K, Ubbes VA, Pyle J, Valois RF. Self-reported weight perceptions, dieting behavior, and breakfast eating among high school adolescents. J Sch Health 2006; 76:87.

21. Along with Concise Reviews and Hypothesis papers (both open access), research areas for the Journal of Food Science include Food Chemistry, Toxicology, Engineering. Journal of Food Science and Technology - Official Sitewww.springer.com
22. Food Research International - Journal - Elsevierwww. Journals. elsevier.com/ food-research...Cached
23. Fast Foods and their Impact on Health - Journal - JKIMSU www.jkimsu. com/ jkimsu-vol1no2/jkimsu-vol1no2-RA-1-7-15.pdf
24. Fast food and sedentary lifestyle: a combination that leads... ajcn. nutrition. org/content/83/2/189.full
25. Fast food and sedentary lifestyle: a combination ... report in this issue of the Journal that the consumption of sugar-sweetened soft drinks and fast food. Journal of Food Science - IFT.org www.ift.org/.../Journal-of-Food-Science. aspxCached
26. Indian journal of pediatric an international journal, volume 85 \number 4\ April 2018, editor – in – chief: Dr.Verma, page no: 924 – 925.
27. Journal of Krishna Institute of Medical Sciences University JKIMSU, Vol. 1, No. 2, July-Dec. 2012 7 review articles, Fast Foods and their Impact on Health.
28. Journals By Subject ... International Journal of Food Contamination; International Journal of Industrial Chemistry; Journal of Analytical Science Technology
29. Journals of pediatric nursing care of children and families, editor – in – chief Cecily Lynn betz, PhD, RN, FANN, November\ December 2017, volume 37 , page no : 14 - 30

30. Journal of Krishna Institute of Medical Sciences University JKIMSU, Vol. 1, No. 2, July-Dec. 2012 review articles, Fast Foods and their Impact on Health.
31. We are pleased to announce that Food Research International has been ... and emergent subjects of food research or food research-related ... fast publication.
32. The Journal of Food Science and Technology ... Journals; Books; Proceedings; ... · Applied research related to food nanotechnology Journals - Springer Openwww.springeropen.com/journal cached.
33. TNNMC – journal of pediatric nursing, volume I \issue two \July – Dec 2017, page no: 11 – 13.

NET

1. www.researchgate.net/publication/308154628
2. www.healthline.com/health/fast-food-effects-on-body
3. iosrjournals.org/iosr-jnhs/papers/vol1-issue6/F0162632.
4. https://www.healthline.com>health>fas...
5. https:www.symptomfind.com>health-h…
6. https://food.ndtv.com>list>th..
7. https://foodrevolution.org>blog>fast – f…
8. https://www.livesstrong.com>articles>35
9. https://brainly.in>....> English
10. https://www.consumerhealthdigest.com>...
11. https://healthyeating,sfgate.com>...>fat
12. https://cspinet.org>eating-healthy>why...
13. https://news.manikarthik.com>...
14. www.ahsanhealthcare.com>top-5-harmf...

15. https://www.bodyandsoul.com.au>health

16. https://en.m.wikipedia.org>wiki>junk...

17. https://en.m.wikipedia.org>wiki>talk:j...

18. https://food.ndtv.com>list>th...

19. https://www.livestrong,com>article>44...

20. https://healthyeating.sfgate.com>disadva...

APPENDIX – A

LETTER FOR SEEKING EXPERTS OPINION FOR CONTENT VALIDITY

From,

G. Kanagamani,
II M. Sc Nursing Student,
C. S. I. Jeyaraj Annapackiam College of Nursing,
Madurai- 625004.

To,

Forwarded Through,

The Principal
C. S. I. Jeyaraj Annapackiam College of Nursing,
Madurai- 625004.

Respected Sir/ Madam,

Sub: Requisition for opinion and suggestion of experts for establishing content validity of research tool-reg.

With due regards, I kindly bring to your notice that I am a postgraduate student of the C.S.I Jeyaraj Annapackiam College of Nursing, Madurai. I selected the below mentioned topic for dissertation to be submitted to the Tamil Nadu Dr. M. G. R. Medical University, Chennai, as a part of partial fulfillment for the Master of Science in Nursing.

"A Study To Assess The Effectiveness Of Video Assisted Teaching Program On Knowledge And Practice Regarding Fast Food Related Health Hazards Among Adolescent Boys from A Selected School At Madurai".

I am in need of your valuable opinions and suggestions regarding the tool which I have prepared. So I humbly request you to spare a little of your precious time to validate the tool, for which I will remain ever grateful to you.

Thanking you in anticipation,

Place: Madurai. Yours sincerely,

Date: (G.KANAGAMANI)

APPENDIX – B

LETTER FOR SEEKING PERMISSION TO CONDUCT THE PILOT STUDY

From

G.Kanagamani,
II M. Sc Nursing Student,
C. S. I. Jeyaraj Annapackiam College of Nursing,
Madurai- 625004.

To

Forwarded Through
The Principal,
C. S. I. Jeyaraj Annapackiam College of Nursing,
Madurai- 625004.

Respected Sir/ Madam,

Sub: Seeking permission to conduct the pilot study for research- reg.

With due regards, I kindly bring to your notice that i am a post graduate student of the C.S.I Jeyaraj Annapackiam College of Nursing, Madurai. I selected the below mentioned topic for dissertation to be submitted to the Tamil Nadu Dr. M.G.R Medical **"A Study To Assess The Effectiveness of Video Assisted Teaching Program On Knowledge And Practice Regarding Fast Food Related Health Hazards Among Adolescent Boys from A Selected School At Madurai".**

I would like to conduct my pilot study in your esteemed institution. Hence I request kind me permission for the same.

Thanking you in anticipation,

Place: Madurai. Yours sincerely,
Date: (G.KANAGAMANI)

APPENDIX – C

LETTER SEEKING PERMISSION TO CONDUCT THE RESEARCH STUDY

From

G.Kanagamani
II M. Sc Nursing Student,
C. S. I. Jeyaraj Annapackiam College of Nursing,
Madurai- 625004.

.

To

Forwarded Through

The Principal,
C. S. I. Jeyaraj Annapackiam College of Nursing,
Madurai- 625004.

Respected Sir/ Madam,

Sub: Seeking permission to conduct the research study- reg.

With due regards, I kindly bring to your notice that i am a post graduate student of the C. S. I Jeyaraj Annapackiam College of Nursing, Madurai. I selected the below mentioned topic for dissertation to be submitted to the Tamil Nadu Dr. M. G. R. Medical University, Chennai, as a part of partial fulfilment for the Master of Science in Nursing.

A Study to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys from a selected school at Madurai".

I would like to conduct my study in your esteemed institution. Hence I request kind me permission for the same.

Thanking you in anticipation,

Place: Madurai. Yours sincerely,

Date: (G.KANAGAMANI)

APPENDIX- D

CERTIFICATE OF VALIDATION

This is to certify that the tool developed by **Mrs. G.Kanagamani**, final year M. Sc Nursing student of C. S. I. Jeyaraj Annapackiam College Of Nursing, Madurai (affiliated to the Tamil Nadu Dr. M. G. R. Medical University) is validated by the undersigned and he can proceed with this tool and conduct the main study for dissertation entitled **"A Study to evaluate the effectiveness of video assisted teaching program on knowledge and practice regarding fast food related health hazards among adolescent boys from a selected school at Madurai".**

Place:

Signature

Date:

Name:

Designation:

Address:

APPENDIX – E

LIST OF EXPERTS FOR CONTENT VALIDITY OF THE TOOL

1. **Dr. (Mrs). Selva Pramila, M.B.B.S. DCH, DNB**
   Department of Paediatrics,
   Christian Mission Hospital,
   Madurai.

2. **Prof. Dr. (Mrs). Jothi Sophia. M.Sc (N)., Ph. D.,**
   Principal
   C.S.I Jeyaraj Annapackiam College of Nursing
   Madurai.

3. **Prof. Dr. Y. John Sam Arun Prabhu, M.Sc (N)., Ph. D.,**
   HOD of Community Department
   C.S.I Jeyaraj Annapackiam College of Nursing
   Madurai.

4. **Prof. (Mrs). Helen Mary Perdita, M.Sc (N)., Ph. D.,**
   Principal
   Madurai Apollo college of Nursing
   Madurai.

5. **Mr.Prabhakarn, M.Sc (Bio – Chemistry)**
   Lecturer
   Dental College Madurai.

6. **Mr. Mani, M.Sc, M. Phil.,**
   Bio – statistician
   Bangalore.

7. **Mrs. Thenmozhai, M.Phil., PhD.,**
   Nutrition
   Madurai

APPENDIX - F

INSTRUMENTS

DEMOGRAPHIC VARIABLES

PART I

Demographical variables of boys

1. Boys during period of age
    a) 13 year ☐
    b) 14 years ☐
    c) 15 years ☐
    d) 16 years ☐

2. Religion
    a) Hindu ☐
    b) Muslim ☐
    c) Christian ☐
    d) Others ☐

3. Type of family
    a) Joint ☐
    b) Nuclear ☐

4. Education status of the boys
    a) 8th standards ☐
    b) 9th standards ☐
    c) 10th standards ☐

5. No of siblings
    a) 0 ☐
    b) 1 ☐
    c) 2 ☐
    d) Above 2 ☐

6. Dietary history of the adolescent

a) vegetarian ☐
b) Non – vegetarian ☐

7-.Family income monthly

a) less than 3000 ☐
b) 3000 - 6000 ☐
c) 6000 – 10 ,000 ☐
d) Above 10 ,000 ☐

8 .Place of residence

a) Rural ☐
b) Urban ☐

9. Source of information

a) Magazine ☐
b) media ☐
c) Peer group ☐
d) Health care personal ☐
e) Social workers ☐

10. over weight classifications based on BMI

a) Normal weight (18. 5 -24 .9) ☐
b) Over weight (25 .0 -29 .9) ☐
c) Class I obesity (30. 0- 34 .9) ☐
d) Class II obesity (35 .0 – 39 .9) ☐
e) Class III obesity(≥40. 0) ☐

11. Fast food consuming history

a) Consume fast food since childhood period

a) Yes ☐
b) No ☐

12. What is the main reason to choose fast food?

a) Convenience ☐

b)Taste ☐

c) Attractive ☐

13. Residing

a) With Parents ☐

b) With Relatives ☐

c) At Hostel ☐

STRUCTURED KNOWLEDGE QUESTIONNAIRE TO EVALUATE THE KNOWLEDGE REGARDING FAST FOOD RELATED HEALTH HAZARDS AMONG ADOLESCENT BOYS

PART II

NOTE: please read the following questions carefully and select the appropriate answer of each questions

A) Definition of fast food

1) What is fast food? ☐
   a) Fast food are quick alternative to home- cooked meals
   b) Balanced diet
   c) High calories and nutrias food
   d) Rich in protein

B) Fast-food items

2) Which is the following is fast food? ☐
   a) pizza
   b) vegetables
   c) fruits
   d) dried fruits

3) Which is the following food is Maidha items? ☐
   a) Dasia
   b) Idly
   c) chapatti
   d) parrota

4) Which is the following drinks is fast food? ☐
   a) Coconut water
   b) Pepsi
   c) Fresh lemon juice
   d) Apple juice

5) Which is the following non-vegetarian consider fast food?

a) mutton
b) Fish
c) chicken
d) smoked meats

d) Soft drink storage:

6) Which is the following shelf life of unopened soft drinks?

a) 6 – 9 months
b) 3 – 6 months
c) 6 – 12 months
d) 1 – 2 years

e) Chemicals in fast food:

7) Which is the following chemicals added the coffee?

a) styloform
b) Artificial dyes
c) Potassium bromide
d) Azodi carbonamide

8) Chemicals added parrota softness?

a) Alloxan
b) Benzyl peroxide
c) Monosodium glutamate
d) Butylated Hydroxyanisole

9) Which is the following chemicals increase appetite?

a) Monosodium glutamate
b) sorbitol
c) Attractive
d) Propyl gallane

10) Monosodium glutamate is added to _____ ☐

a) Taste
b) Colouring agents
c) Increase appetite
d) Attractive

f) Effects of fast food

11) Which is the following disease cause mono sodium glutamate? ☐

a) Obesity
b) Heart disease
c) Ulcer pain
d) diarrhoea

12) Which is the following chemical cause stomach cancer? ☐

a) Potassium bromate
b) Methyl cellulose
c) Monosodium glutamate (MSG)
d) Sodium tri poly phosphate

13) Which is the following chemical cause diabetes? ☐

a) Alloxan
b) Sulfites
c) Mono – glycerides
d) Brominated oils

14) Which is the following chemical cause memory loss? ☐

a) Brilliant blue
b) Sulfites
c) Alloxan
d) Mono– glycerides

15) Which is the following chemical cause thyroid function? ☐

a) glutamic acid
b) 2 – methyl imidazole
C) Tartrazine
d) Maleic hydrazide

16) Which is the following chemical cause dental carries? ☐

a) Mono – glycerides

b) Alloxan

c) Sulfites

d) Sodium nitrates

17) Which is the following chemical cause heart disease? ☐

a) Hydrolyzed vegetable proteins

b) Carboxyl methylcellulose

c) monosodium glutamate (MSG)

d) Calcium propionate

18) Which is the following chemical cause colon cancer? ☐

a) Carrageenan

b) Heterocyclic amines

c) hydrolyzed vegetable proteins

d) Sodium nitrates

19) Which is the following chemical affect the nervous system? ☐

a) Styloform

b) Chlorine dioxide

c) Carnosine

d) Erythrosine

g) Helps to avoid fast food

20) Which is the following factors minimize the fast food consumption? ☐

a) Awareness of fast food ill effects

b) Fast food shop avoid the nearby the school

c) Only take home made preparations

d) Parents observations

SELF EXPRESSED STRUCTURED INTERVIEW SCHEDULE TO ASSESS THE PRACTICE REGARDING FAST FOOD RELATED HEALTH HAZARDS AMONG ADOLESCENT BOYS

PART III

S.NO	QUESTIONS	ALWAYS	SOMETIMES	NEVER
	FAST FOOD CONSUMING			
1	Regular customer of fast food from the shop			
2	Habits of eating fast food with peer groups			
3	Fast food consuming time a) Morning time b) Afternoon time c) Evening time d) Night time			
4	Frequent consuming of non-veg fast foods a) Grill chicken b) Smoked fish c) Smoked meats d) Chicken burger			
5	Frequent consuming of beverages a) Coke b) Pepsi c) 7 Up d) Miranda			

6	Frequent consuming of Maidha items a Maidha bread b) noodles c) parrota d) pizza			
7	Frequent consuming of Milk products a) ice cream b) milk shake c) milk sweats e) pastries			
8	Frequent consuming of snacks a) Lays b) Bingo emits c) kukri d) bingo made angles			
9	Frequent consuming of sauce a) Tomato sauce b) Soya sauce c) Chilly sauce d) Garlic sauce			
10	**HEALTH STATUS** Effects with consuming of non-veg fast foods a) stomach ulcer b) abdominal pain c) indigestion d) diarrhoea			

11	Effects with consuming beverages a) Dental cavities b) Gaining weight c) Heart disease d) Stomach ulcer			
12	Effects with consuming Maidha a) joint pain b) intestinal bloating c) Indigestion d) Diabetic			
13	Effects with consuming milk products a) indigestion b) Stomach pain c) flatulence d) diarrhoea			
14	Effects with consuming snacks a) vitamin deficiency b) weight gain c) high cholesterol d) hypertension			
15	Effects with consuming sauce a) constipation b) Vomiting c) stomach ulcer d) diarrhoea			

APPENDIX – G

துரித உணவுவை பற்றிய வடிவமைக்கப்பட்ட நேர் காணல் படிவம்

பிரிவு – அ

குறிப்பு: கீழ்க்காணும் விபரங்களை வாசித்து அதற்கு தகுந்த பதிலை கொடுக்கப்பட்ட இடத்தில் அடையாளக்குறி (✓) போட்டுக் காட்டவும்

1) வயது

அ) 13 வயது ☐

ஆ) 14 வயது

இ) 15 வயது

ஈ) 16 வயது

2) மதம் ☐

அ) இந்து

ஆ) கிறிஸ்தவர்

இ) முஸ்லிம்

3) குடும்பம் ☐

அ) தனிக்குடும்பம்

ஆ) கூட்டுக்குடும்பம்

4) மாணவரின் கல்விதகுதி ☐

அ) 8 ம் வகுப்பு

ஆ) 9ம ம் வகுப்பு

இ)10 ம் வகுப்பு

5) குழந்தைகளீன் எண்ணிக்கை ☐

அ) 0

ஆ) 1

இ) 2

ஈ) இரண்டிற்கும் மேல்

6) உணவு வகை ☐

அ) சைவம்

ஆ) அசைவம்

7) குடும்ப மாத வருமானம் (ரு) ☐

அ) <3000

ஆ) 3000 – 6000

இ) 6000 – 10,000

ஈ) >10,000

8) இருப்பிடம் ☐

அ) கிராமம்

ஆ) நகரம்

9) தகவல் பற்றி ☐

அ) செய்திதாள்

ஆ) நண்பர்கள்

இ) ஊடகம்

ஈ) சுகாதார பராமரிப்பு

உ) சமுக தொழிலாளர்கள்

10) உடல்பருமனின் வகைபாடு ☐

அ) 18.5 – 24.9 சாதாரண எடை

ஆ) 25.0 – 29.9 அதிக எடை

இ) 30.0 – 34.9 வகை 1 உடல்பருமன்

ஈ) 35.0 – 39.9 வகை 2 உடல்பருமன்

உ) > 40.0 வகை 3 உடல்பருமன்

11) துரிதா உணவு உண்பது பற்றிய ☐

அ) குழந்தை பருவமுதல்

அ) ஆம்

ஆ) இல்லை

12) துரிதா உணவு உண்பதின் காராணம்

அ) வசதிக்காக

ஆ) சுவைக்காக

இ) கவர்ச்சிகரமான

13) வசிக்கும் இடம்

அ) பொற்றொர்களுடன்

ஆ) உறவினார்களுடன்

இ) விடுதியில்

பிரிவு – ஆ

துரிதா உணவைப் பற்றிய வடிவமைக்கப்பட்ட அறிவு சார்ந்த நேர் காணல் படிவம்

குறிப்பு: கீ கொடுக்கப்பட்டுள்ள வினாக்களை வாசித்து அதற்கு தகுந்த பதிலை குறிக்கவும்

துரிதா உணவு வரையறு

1) துரிதா உணவு என்ற ல் என்ன?

அ) சீக்கிரமாக தயார்படுத்தும் உணவு ☐

ஆ)சரிவிகிதா உணவு

இ) அதிக கலாரி மற்றும் ஊட்டச்சத்து **உணவு**

ஈ) அதிக புரதம்வுள்ள உணவு

துரிதா உணவு பட்டியல்

2) எது இதில் துரிதா உணவு? ☐

அ) பிட்சா

ஆ)காய்கறிகள்

இ) பழங்கள்

ஈ)உலர்ந்த பழங்கள்

3) எது இதில் மைதா உணவு? ☐

அ) தோசை

ஆ) இட்லி

இ) சப்பாத்தி

ஈ) பாரோட்டா

4) எது இதில் துரிதா உணவு குளிர்பானங்கள்? ☐

அ) இளனீர்

ஆ) பொப்சி

இ) எலுமிச்சை சாரு

ஈ) ஆப்பிள் சாரு

5) எது இதில் துரிதா உணவு அசைவா உணவுகள்?

அ) இரைச்சி ☐

ஆ) மீன்

இ) கோழி

ஈ)புகைட்டப்பட்ட இரைச்சி

குளிர்பானங்கள் சோமிப்பு

6) எது இதில் துரிதா உணவு குளிர்பானங்கள் ஆயிட்காலம்?

அ) 6 – 9 மாதம் ☐

ஆ) 3 – 6 மாதம்

இ) 6 – 12 மாதம்

ஈ) 1 – 2 வருடம்

துரிதா உணவு வோதிப்பொருள்

7) இதில் எந்த வோதிப்பொருள் கஃபில் கலந்தூள்ளாது?

அ) சைடலாபாஃம் ☐

ஆ) சொயற்கை சாயம்

இ) பொட்டாசியம் பிரைமிடு

ஈ) அஜடி கார்பானமடைடு

8) பாரோட்டாவின் மிதுமிதுப்புக்காக செர்க்காப்பட்ட வோதிப்பொருள் எது? ☐

அ) அலக்சான்

ஆ) பென்சைல் பொரக்சைடு

இ) மோனோசைடு குலூட்டாமோட்

ஈ) புட்டாலோட் ஹைட்ராக்சீசோல்

9) இதில் எந்த வோதிப்பொருள் அதிகா அளவு பசியை துண்டுகிறது? ☐

அ) மோனோசைடு குலூட்டாமோட்

ஆ) சார்பிட்டால்

இ)கவார்ச்சிகாரமான

ஈ) புராபைல் காலின்

10) மோனோசைடு குலூட்டாமோட் எதற்கு சோர்க்கபடுகிறது?

அ) சுவைக்காக ☐

ஆ) சாயத்திர்க்காக

இ) பசியை துண்டுவதற்காக

ஈ) கவார்ச்சிக்காக

துரிதா உணவு விளைவுகள்

11) இதில் எந்த வகையான நோய்யை மோனோசைடு குலூட்டாமோட் எற்படுத்துகிறது? ☐

அ) உடல்பருமன்

ஆ) இதய நோய்யை

இ) வயிற்று புண் வலி

ஈ) வயிற்று போக்கு

12) இதில் எந்த வகையான வோதிப் பொருள் வயிற்றுப் புற்றூ நோய்யை எற்படுத்துகிறது? ☐

அ) பொட்டாசியம் புராமைடு

ஆ) மொத்தில் சொல்லுலோ

இ) மோனோசைடு குலூட்டாமோட்

ஈ) சோடியம் ரை பாலி பாபோட்

13) இதில் எந்த வகையான வோதிப் பொருள் நீரிழவு நோய்யை எற்படுத்துகிறது? ☐

அ) அலக்சான்

ஆ) சல்பைடு

இ) மோனோ கிலுசரைடு

ஈ) புரமினோட்டாடு ஆயில்

14) இதில் எந்த வகையான வோதிப் பொருள் ஞபாக மறாதியை எற்படுத்துகிறது? ☐

அ) பிரிலியண்டு புலு

ஆ) சல்பைடு

இ) அலக்ஸ்சான்

ஈ) மோனோ கிலுசரைடு

பிரிவு -இ

துரித உணவைப் பற்றிய வடிவமைக்கப்பட்ட செய்முறை நேர்காணல் படிவம்

வ.எண்	கேள்விகள்	எப்போழுதும்	சில நேரங்களில்	ஒரு போதும்
துரித உணவு உண்பதை பற்றி				
1.	துரித உணவு கடைகளின் தினசரி வடிக்கையாளரா?			
2.	நண்பர்களுடன் சேர்ந்து துரித உணவு கடைகளில் சாப்பிடுவது வழக்கமா?			
3.	துரித உணவு சாப்பிடும் நேரம். அ. காலை நேரம் ஆ. மதிய நேரம் இ. மாலை நேரம் ஈ. இரவு நேரம்			
4.	துரித அசைவ உணவுகளில் அடிக்கடி சாப்பிடுவது. அ. கிரில் சிக்கன் ஆ.புகையூட்டப்பட்ட மீன் இ.புகையூட்டப்பட்ட இறைச்சி ஈ. சிக்கன் பர்கர்			
5.	அடிக்கடி அருந்தும் பானங்கள். அ. கோக் ஆ.பெப்சி இ.7 அப் ஈ. மிராண்டா			

6.	அடிக்கடி மைதா உணவு வகைகள். அ. மைதா ரொட்டி ஆ.நூடுல்ஸ் இ.பரோட்டா ஈ. பீட்சா			
7.	அடிக்கடி சாப்பிடும் பால் சார்ந்த பொருட்கள். அ. ஐஸ்கிரீம் ஆ.மில்க் செக் இ.மில்க் சுவிட் ஈ. பஸ்டரிஸ்			
8.	அடிக்கடி சாப்பிடும் திண்பண்டங்கள். அ. லெஸ் ஆ.பிங்கோ எமிட்ஸ் இ.குர்க்குரே ஈ. பிங்கோ மேடு ஆங்கிள்ஸ்			
9.	அடிக்கடி சாப்பிடும் சாஸ் வகைகள். அ. தக்காளி சாஸ் ஆ.சோயா சாஸ் இ.மிளகாய் சாஸ் ஈ. பூண்டு சாஸ்			
சுகாதார நிலை				
10.	துரித அசைவ உணவு உண்பதால் ஏற்படும் விளைவுகள். அ. வயிற்று புண் ஆ.வயிற்று வலி இ.செரிமான கோளாறு ஈ. வயிற்று போக்கு			

11.	பானங்கள் அருந்துவதால் ஏற்படும் விளைவுகள். அ. பற் சொத்தை ஆ.உடல் பருமன் இ.இதய நோய் ஈ. குடல் புண்			
12.	மைதா உண்பதால் ஏற்படும் விளைவுகள். அ. மூட்டு வலி ஆ.குடல் வீக்கம் இ. செரிமான கோளாறு ஈ. நீரிழிவு நோய்			
13.	பால் சார்ந்த பொருட்கள் சாப்பிடுவதால் ஏற்படும் விளைவுகள். அ. செரிமான கோளாறு ஆ. வயிற்று வலி இ. வாயு தொந்தரவு ஈ. வயிற்று போக்கு			
14.	அடைக்கப்பட்ட திண்பண்டங்கள் உண்பதால் எற்படும் விளைவுகள். அ. விட்டமின் குறைபாடுகள் ஆ. எடை அதிகரித்தல் இ. அதிக கொழுப்பு ஈ. உயர் இரத்த அழுத்தம்			
15.	சாஸ் சாப்பிடுவதால் எற்படும் விளைவுகள். அ. மலசிக்கல் ஆ. வாந்தி இ. வயிற்று புண் ஈ. வயிற்று போக்கு			

APPENDIX – H

VIDEO ASSISTED TEACHING

PROGRAM ON FAST FOOD RELATED HEALTH HAZARDS

VIDEO ASSISTED TEACHING PROGRAM ON FAST FOOD RELATED HEALTH HAZARDS

Topic	**:**	Fast Food Related Health Hazards
Group	**:**	Adolescent Boys
No of Participants	**:**	60
Duration	**:**	45 Minutes
Method of Teaching	**:**	Lecture cum discussion
A V Aids	**:**	LCD Presentation

GENERAL OBJECTIVE

At the end of the class the learners will be able to acquired knowledge regarding fast food related health hazards and develop awareness about the fast food ill effects

SPECIFIC OBJECTIVES

At the end of the class, the learners will be able to:

- Define fast food
- Explain the factors affecting the food and nutrition
- List down the classification of fast food
- Enlist the chemicals in Maidha items
- Mention the beverages ill effects
- Explain the details about the milk product and ill effects
- Describe the packed snacks and smoked meats
- List down the adolescent boys normal height and weight
- Enumerate the recommended dietary allowances for adolescent boys
- Describe the details about system based ill effects

S.no	Objectives	Content	Teachers Learners activity	Avaids	Evaluation
1 min	To introduce the topic	**FAST FOOD RELATED HEALTH HAZARDS** **"BODY IS TEMPLE OF GOD"** **HEALTH IS WEALTH** **Introduction :-** Time is going speed at the same time we also going speed. We want to finish our work at quickly, so prepared or buy a fast food in less time. We consuming fast food and also follow the children because we got so many disease in our body **History:** **Belgium Incidence** In June 1999, secondary school pupils in Belgium complained of abdominal discomfort, headache, nausea, malaise, respiratory distress, trembling and dizziness following consumption of a popular brand of soft drink. Immediately the Belgian health authorities banned the sale and consumption of all soft drinks from that company for several weeks. Toxicological data that were made available later suggested that the cause of health complaints was due to contamination of the carbon dioxide in soft drinks by carbonyl sulfide, leading to a toxic by product, hydrogen sulfide.	Lecture cum discussion	**L** **C** **D**	

3 min	The students will be able to define fast food	**Definition :-** Food that has low nutritional value, typically produced in the form of packaged snacks needing little or no preparation. **Andrew F. Smith, in** his says **fast food** as ‘’those commercial products, including candy bakery goods, ice cream, salty snacks, and soft drinks ,which have little or no nutritional value but do have plenty of calories, salt, and fats.	Lecture cum discussion	**L**	What is fast food**?**
5 min	The students will able to explain the factors affecting food and nutrition	**Factors Affecting Food And Nutrition:-** Among factors, which was affecting energy needs, are age, sex, body size, climate, secretion of endocrine glands, status of health, altered physiological activity. ❖ **Age**:- During the growth period, the BMR is high, therefore during infancy the energy need per Kg of body weight is highest than during adulthood. The younger the individuals the higher, the basal metabolism since much energy are stored for growth. The period at which the basal metabolism reaches its highest level is between the ages of 1-2 years. ❖ **Sex :-** Males have a greater amount of muscles and glandular tissues which is metabolically more active whereas, females have greater adipose tissues which is metabolically less active, hence energy requirement of males is higher than of females.	Lecture cum discussion	**C** **D**	What are the factors affecting the food and nutrition**?**

		❖ **Body size :-** It will have an important effect on energy needs because a larger body has a greater amount of muscles and glandular tissue to maintain, thus requiring higher energy allowances ❖ **Climate :-** It is known that the BMR is lower in tropics then in temperature zones. Hence, the energy cost of work is slightly higher when the temperature falls below 140c. However, it is felt that there is no need to make any adjustment for temperature in India. ❖ **Peer groups** peer group also increase the habits of eating fast food ❖ **Appetite** Fried food ,tasty, attractive food it increase appetite to eat fast food ❖ **Increase of fast food shop** It's also increase fast food consuming	Lecture cum discussion	**L** **C** **D**	

<table>
<tr>
<td>3 min

5 min</td>
<td>The students will able to list down the classification of fast food

The students will able to enlist the chemicals in Maidha items</td>
<td>
Classification of Fast Food :-

a) Maidha items

<table>
<tr><th>s.no</th><th>Fast food</th><th>Chemicals</th><th>Ill effects</th></tr>
<tr><td>1.</td><td>Parotta</td><td>Alexon</td><td>• Diabetic
• constipation
• weight gain
• heart attack</td></tr>
<tr><td>2.</td><td>Bread (Maidha)</td><td>potassium bromide</td><td>• Stomach pain
• Diarrhea
• Vitamin deficiency</td></tr>
<tr><td>3.</td><td>Noodles</td><td>Monosodium glutamate (MSG)</td><td>• Diabetic
• Seizures
• High blood pressure
• Obesity</td></tr>
<tr><td>4.</td><td>Pizza</td><td>potassium bromide and butylated Hydroxyanisole</td><td>• Indigestion
• Abdominal pain
• Diarrhea
• Vomiting</td></tr>
<tr><td>5.</td><td>Burger</td><td>Hydrolyzed vegetable proteins</td><td>• Constipation
• Flatulence
• Indigestion
• Allergic reaction</td></tr>
</table>
</td>
<td>Lecture cum discussion

Lecture cum discussion</td>
<td>L

C

D</td>
<td>What are the classification of fast food?

What are the chemicals in Maidha items?</td>
</tr>
</table>

<table>
<tr>
<td>5 min</td>
<td>The students will able to mention beverages ill effects</td>
<td>
b) Beverages
<table>
<tr><th>s.no</th><th>Fast food</th><th>Chemicals</th><th>Ill effects</th></tr>
<tr><td>1</td><td>Cool Drinks
coke, Pepsi, sprite, 7-upMountain, Dr. pepper, Miranda, Maze</td><td>Tartrazine. Artificial color, 2 Methyl imidazole</td><td>• Allergic reaction
• Rhinitis
• Migraines
• Fatigue
• Breathing difficult
• Liver and Lung cancer</td></tr>
<tr><td>2</td><td>Carbonated soda</td><td>carbon dioxide gas</td><td>• Stomach ulcer
• Tooth decay
• Flatulence
• Weight gain
• Osteoporosis</td></tr>
<tr><td>3</td><td>Hot Drinks
Coffee</td><td>Styloform</td><td>• Dizziness
• Head ache
• Fatigue
• Stomach Ulcer</td></tr>
</table>
</td>
<td>Lecture cum discussion</td>
<td>L
C
D</td>
<td>What are the beverage ill effects?</td>
</tr>
</table>

<table>
<tr>
<td>5 min</td>
<td>The students will able to explain the details about the milk products and ill effects</td>
<td>
C) Milk products related to fast food
<table>
<tr><th>s.no</th><th>Fast food</th><th>Chemicals</th><th>Ill effects</th></tr>
<tr><td>1.</td><td>Ice cream</td><td>Brilliant blue 1 and 2</td><td>• Head ache
• Sore throat
• Upper respiratory infection
• Rhinitis</td></tr>
<tr><td>2.</td><td>Milk shake</td><td>Polylobate 80</td><td>• Allergic reaction
• Sore throat
• Sever dizziness
• Breathing trouble</td></tr>
<tr><td>3.</td><td>Pastries</td><td>Caramel Coloring</td><td>• Allergic reaction
• Tooth decay
• Stomach ulcer</td></tr>
<tr><td>4.</td><td>Peanut butter</td><td>Hexane</td><td>• Head ache
• Allergic reaction
• Dizziness
• Affects the nervous system</td></tr>
<tr><td>5.</td><td>Milk sweet</td><td>Aluminum foil sheet</td><td>• Indigestion
• Vomiting / Nausea
• Diarrhea
• Abdominal pain</td></tr>
</table>
</td>
<td>Lecture cum discussion</td>
<td>L

C

D</td>
<td>What are all the milk products and ill effects?</td>
</tr>
</table>

<table>
<tr>
<td>3 min</td>
<td>The students will able to describe the packed snacks and smoked meats</td>
<td>
d) Fast food packing snacks
<table>
<tr><th>s.no</th><th>Fast food</th><th>Chemicals</th><th>Ill effects</th></tr>
<tr><td>1.</td><td>Lays, kukri, Bingo made angle</td><td>Tartrazine</td><td>• Head ache
• Allergy
• Abdominal pain
• Vitamin deficiency</td></tr>
<tr><td>2</td><td>Biscuits with creams</td><td>Sunset yellow</td><td>• Allergic reaction
• Irritability</td></tr>
<tr><td>3</td><td>Fried chips</td><td>Marijuana wax</td><td>• Dizziness
• Indigestion
• Head ache
• Suppression of the immune system</td></tr>
</table>
e) Smoked non –vegs in fast foods
<table>
<tr><th>s.no</th><th>Fast food</th><th>Chemicals</th><th>Ill effects</th></tr>
<tr><td>1.</td><td>Smoked meats and chicken</td><td>Sodium nitrates and heterocyclic amines.</td><td>• Heart disease
• Allergic reaction
• Seizures
• Head ache
• Dizziness</td></tr>
</table>
</td>
<td></td>
<td>L

C

D</td>
<td>What are the packed snacks and smoked meats?</td>
</tr>
</table>

		Health Maintained During Adolescent Period :- **Maintain Healthy Life Style:** 1. All non-essential food additives should be avoid particularly all cosmetic agents such as food colorants. 2. The amount of TV advertising that encourages children to buy and eat unhealthy fast food should be vigorously avoid as children are presently surrounded by images promoting extremely unhealthy eating habits. 3. All foods that have little or no nutritional value should be discouraged. 4. Encourage the child to take fruits, green vegetables and dhal. 5. Maidha, beverages, non- vegetable packed snacks and milk products avoid to eat which helps to maintain the health.	Lecture cum discussion	**L** **C** **D**	

<table>
<tr>
<td>2 min

3 min</td>
<td>The students will able to list down the adolescent boys in normal height and weight

The students will able to enumerate the recommended dietary allowances for adolescent boys</td>
<td>
Adolescent boys in normal height and weight:
<table>
<tr><th>S.NO</th><th>AGE</th><th>HEIGHT</th><th>WEIGHT</th></tr>
<tr><td>1</td><td>13 years</td><td>144.6 cm</td><td>32.11 kg</td></tr>
<tr><td>2</td><td>14 years</td><td>150.1 cm</td><td>35.7 kg</td></tr>
<tr><td>3</td><td>15 years</td><td>155.5 cm</td><td>39.6 kg</td></tr>
<tr><td>4</td><td>16 years</td><td>159.5 cm</td><td>43.2kg</td></tr>
</table>
Recommended Dietary Allowances (RDA) For Adolescent Boys:-
<table>
<tr><th>NUTRIENTS</th><th>11 – 14 YEARS</th><th>15 – 18 YEARS</th></tr>
<tr><td>Carbohydrates</td><td>225 to 325 grams</td><td>293 to 423 grams</td></tr>
<tr><td>protein</td><td>46gm</td><td>44gm</td></tr>
<tr><td>calories</td><td>2200 kilo calories</td><td>2200 kilo calories</td></tr>
<tr><td>Calcium</td><td>1200 mg</td><td>1200 mg</td></tr>
<tr><td>Zinc</td><td>12 mg</td><td>12 mg</td></tr>
<tr><td>Vitamin A</td><td>800 mg</td><td>1000 mg</td></tr>
<tr><td>Vitamin D</td><td>10 mg</td><td>10 mg</td></tr>
<tr><td>Vitamin C</td><td>50 mg</td><td>60 mg</td></tr>
<tr><td>Folic acids</td><td>150µg</td><td>180 µg</td></tr>
<tr><td>Fat</td><td>42 to 58 grams</td><td>55 to 75 grams</td></tr>
<tr><td>Fluid</td><td>50 ml</td><td>50 ml</td></tr>
<tr><td>Iron</td><td>15mg</td><td>15mg</td></tr>
</table>
</td>
<td>Lecture cum discussion</td>
<td>L

C

D</td>
<td>What is adolescent boys in normal height and weight?

What is the recommended dietary allowance for adolescent boys?</td>
</tr>
</table>

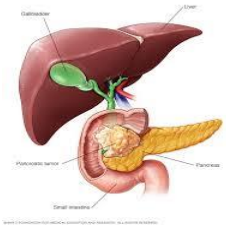
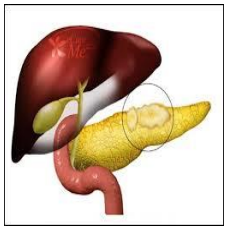
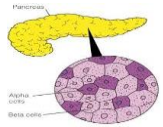
<table>
<tr>
<td>10 min</td>
<td>The students will able to describe the details about system based ill effects</td>
<td>
System Based Ill Effects of Fast Food

a) Maidha Items

<table>
<tr><th>s.no</th><th>Fast food</th><th>Chemicals</th></tr>
<tr><td>1.</td><td>Parotta
  </td><td>Alloxan
 
</td></tr>
</table>
</td>
<td>Lecture cum discussion</td>
<td>L

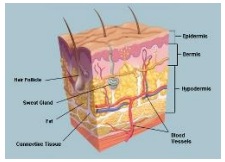
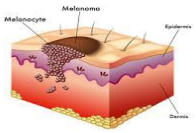
C

D</td>
<td>What is system based ill effects?</td>
</tr>
</table>

S. No	Normal And Abnormal	Cycle			
1.	**Endocrine System** **Normal** **Abnormal**  	Alloxan ⇩ Enter into the pancreas ⇩ Affects the beta cells  ⇩ Inhibition of glucose – induced insulin secretion ⇩ Reduce glucose oxidation (Increase glucose) ⇩ Cause Diabetic	Lecture cum discussion	**L** **C** **D**	

		<table><tr><th>S. NO</th><th>Fast Food</th><th>Chemicals</th></tr><tr><td>2.</td><td>Noodles  </td><td>Monosodium Glutamate  </td></tr></table>	Lecture cum discussion	L C D	

			Lecture cum discussion	**L** **C** **D**	

S. No	Normal Abnormal	Cycle
2.	**Skin** **Normal** **Abnormal**  	**Monosodium glumate** ⇩ Increased Fat Contain ⇩ Fat stored in adipocytes ⇩ Slow metabolism and less need for the body to burn fat ⇩ Increased fat storage cause obesity

		<table><tr><th>S.No</th><th>Fast Food</th><th>Chemicals</th></tr><tr><td>3.</td><td>**Pizza** **Burger**   </td><td>**Potassium bromide**   </td></tr></table>	Lecture cum discussion	**L** **C** **D**	

		S.No	**Normal Abnormal**	**Cycle**	Lecture cum discussion	**L** **C** **D**
		3.	**Stomach** 	**Increased potassium bromide concentration** (contain salt) ⇩ Irritates the gastric mucous membrane ⇩ Erosion of the mucus membrane ⇩ Ulcer formation ⇩ Cause abdominal pain, Nausea, Vomiting ,ulcer		

b) Beverages

S.No	Fast Food	Chemicals
1.	**Carbonated Soda** 	**Carbon dioxide gas** 

Lecture cum discussion

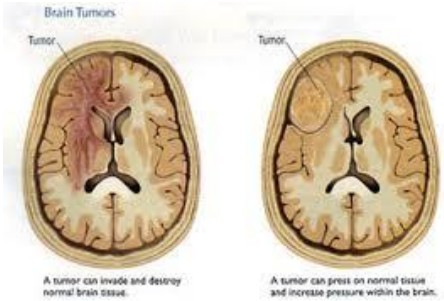
L

C

D

		S. No	**Normal Abnormal**	**Cycle**	Lecture cum discussion	**L** **C** **D**	
		1.	**Bone**  	**Ingestion Soda** ⇩ **Enter into the gut** ⇩ Calcium block to absorption ⇩ High phosphorus and low calcium ⇩ Cause bone density ⇩ Cause osteoporosis			

		<table><tr><th>S. No</th><th>Fast Food</th><th>Chemicals</th></tr><tr><td>2.</td><td>**Styrofoam**  </td><td>**Styloform**  </td></tr></table>	Lecture cum discussion	**L** **C** **D**	

		S. No	**Normal** **Abnormal**	**Cycle**	Lecture cum discussion	**L** **C** **D**	
		2.	**Brain**  	**Ingestion of coffee** ⇩ **Styloform entered in the form of styrene** ⇩ **Mixed with blood** ⇩ **Cause neurological problem**		

c) Milk products

S. No	Fast Food	Chemicals
1.	Ice cream 	Brilliant blue 1 and 2 

L

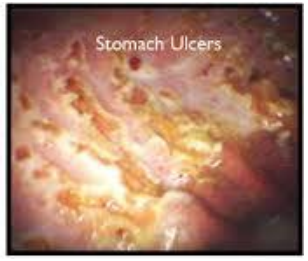
C

D

S.NO	Normal	Abnormal	Cycle		
1.	**Lung** 		Brilliant Blue ⇩ Inhibits the succinate supported respiration in mitochondria ⇩ Mitochondria help to maintain aerobic respiration ⇩ Inhibits ATP Synthesis ⇩ Altered Respiratory Function	Lecture cum discussion	**L** **C** **D**

		<table><tr><th>S.NO</th><th>Fast Food</th><th>Chemicals</th></tr><tr><td>2.</td><td>**Milk Sweet**  </td><td>**Aluminum Foil Sheet**  </td></tr></table>	Lecture cum discussion	**L** **C** **D**	

			Lecture cum discussion	L C D	

S.NO	Normal	Abnormal	Cycle
2.	**Stomach**  		**Swallowing of aluminum foil** ⇩ **Going inside the stomach cell** ⇩ **Create gas and burn the stomach mucous membrane** ⇩ **Develop gastric symptoms**

d) Packed snacks in fast food

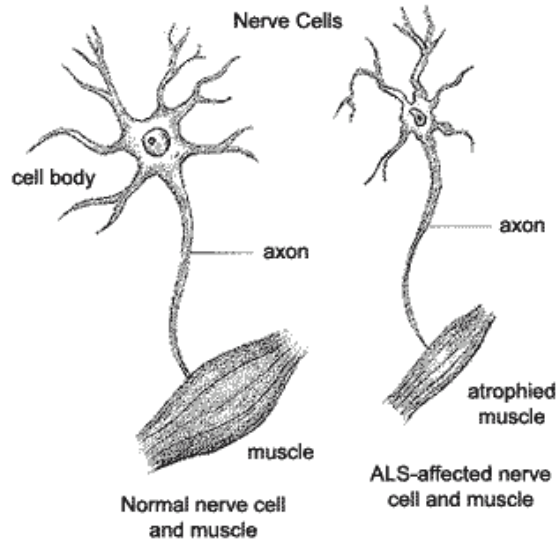
S. No	Fast Food	Chemicals
1.	**Lays, kukri, Bingo Made Angle** 	**Tartrazine** 

Lecture cum discussion

L

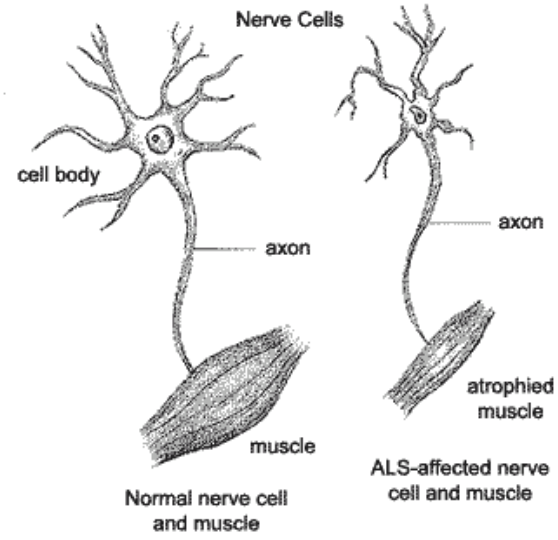
C

D

		<table><tr><th>S. No</th><th>Normal Abnormal</th><th>Cycle</th></tr><tr><td>1.</td><td>  </td><td>Tartrazine ⇩ Dyes affect the cells in the brain ⇩ Change the neuromotor function ⇩ Develop the neurological symptoms</td></tr></table>	Lecture cum discussion	**L** **C** **D**	

			Lecture cum discussion	L C D	

S. No	Fast Food	Chemicals
1.	**Fried Chips** 	**Marijuana wax** 

S. No	Normal Abnormal	Cycle
2.		Marijuana wax ⇩ Made up of cannabis and alcohol ⇩ Cannabinoid Receptors ⇩ Inhibits the neuro transmitter impulse ⇩ Neurological symptoms developed

Lecture cum discussion	**L** **C** **D**	

f) smoked non- veg in fast foods

S. No	Fast Food	Chemicals
1.	**Smoked meats and chicken** 	**Sodium Nitrates** 

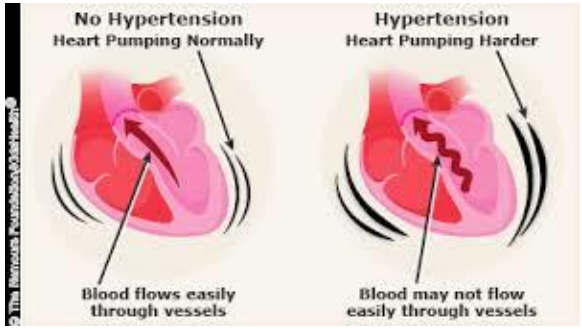
Lecture cum discussion

L

C

D

			Lecture cum discussion	L C D	

S. No	Normal Abnormal	Cycle
1.	**Heart**  	Sodium Nitrates ⇩ Damage blood vessels ⇩ Making arteries harden and narrow ⇩ Develop heart disease

APPENDIX – I

துரிதா உணவு மற்றும் அதன் விளைவிற்க்கான திட்டமிட்ட போதனை படிவம்

துரிதா உணவு மற்றும் அதன் விளைவிற்க்கான திட்டமிட்ட போதனை படிவம்

தலைப்பு	: துரித உணவு தொடர்பான உடல் நல கோளாறுகள்
குழு	: பருவ வயது சிறுவர்கள்
பங்கோற்பாளர்களின் எண்ணிக்கை	: 60
கால அவகாசம்	: 45 நிமிடங்கள்
கற்பிக்கும் முறை	: கற்பித்தல் மற்றும் கலந்துரையாடல்
ஒலி – ஒளி அமைப்பு	: ஆற்றல் புள்ளி விளக்கப்படம்

பொது நோக்கம் :

இளம் பருவத்தினர் இந்த போதனையின் முலம் துரிதா உணவுப் பற்றிய விழிப்புணர்வை அடைவார்கள். இதனால் தாங்கள் கற்று கொண்டதை அனுதின வாழ்வில் நடைமுறை படுத்துவார்கள்.

குறிப்பிட்ட நோக்கம்:

- துரிதா உணவு வரையறுத்தல்
- உணவு மற்றும் ஊட்டச்சத்து பாதிக்கும் காரணிகள் பற்றி விளக்கவும்
- துரிதா உணவு வகைப்படுத்தலை பட்டியலிடவும்
- மைதா பொருட்களில் உள்ள இரசாயனங்கள்
- பானங்கள் மற்றும் அதன் விளைவுகளை குறிப்பிடுங்கள்
- பால் உற்பத்தியைப் பற்றிய விவரங்கள் மற்றும் அதன் விளைவுகளைப் பற்றி விளக்குங்கள்
- சிற்றுண்டி மற்றும் புகையுட்டப்பட்ட இறைச்சியை பற்றி விவரிக்கவும்
- இளம் பருவத்திர்க்கான சரியான உயரம் மற்றும் எடை பட்டியலிடவும்
- இளம் பருவத்திர்க்கான பரிந்துரைக்கப்பட்ட உணவு பட்டியலை விவரிக்கவும்
- உடல் உறுப்பு சார்ந்த விளைவுகளை பற்றி விளக்கவும்

நேரம்	நோக்கம்	பொருடளக்கம்	கற்ப்பிக்கும் முறை மற்றும் செயல்	ஒலி/ஒளி துணை	மதிப்பீடு
1 நிமிடங்கள்	தலைப்பு அறிமுகப்படுத்துதல்	**முன்னுரை:** **“சரீரமே கடவுளின் ஆலயம்”** **“நேயற்ற வாழ்வே குறைவற்ற செல்வம்”** நேரம் எவ்வளவு சீக்கிரமாக போகிறதோ அதே போல் நாமும் வேகமாக நம்மை தயார்படுத்துகிறோம். எல்லா வேலைகளையும் சீக்கிரமாக செய்ய வேண்டும் என்று எதிர் பார்த்த நாம் சாப்பிடுவதையும் செய்ய வேண்டும் என்று நினைத்தோம் அப்படி வந்தது தான் தூரித உணவு. அதனை ருசிக்க நாம் அடிமையாவ்தோடு மட்டுமல்லாமல் நாம் குழந்தைகளையும் அடிமையாக்கி விட்டோம் அனைத்தும் வருவதாக மருத்துவர்கள் கூறுகின்றனர். **வரலாறு:** ஜுன் 1999 ஆண்டில் பெல்ஜியம் நாட்டில் ஒரு வகையான பானங்கள் அருந்தியதால் அங்குள்ள குழந்தைகள் பலருக்கு வயிறு சம்மந்தமான நோய்கள் மற்றும் நுரையீரல் சம்மந்தமான நோய்கள் ஏற்பட்டன.இதனை தடுக்கும் வகையில் பெல்ஜியம் நாட்டிலுள்ள அரசாங்கமானது அதனை தடை செய்தது. எதனால் அந்த குளிர்பானங்களை தடை செய்தது எனில் அதில் விச வாயுக்களான கார்பன் டை ஆக்ஸைடு, ஹைட்ரஜன் சல்பைடு, மற்றும் கார்பன் சல்பைடு இருந்தது.	கற்பித்தல் விரிவுரைத்தல்	ஆற்றல்புள்ளிவிளக்கப்படம்	

3 நிமிடங்கள் 5 நிமிடங்கள்	துரிதா உணவு வரையறுத்தல் உணவு மற்றும் ஊட்டச்சத்து பாதிக்கும் காரணிகள் பற்றி விளக்கவும்	**வரையறை**  துரித உணவு என்பது வணிக தாயாரிப்புகள் மூலம் உருவாக்கப்பட்ட உணவுகள் மற்றும் குளிர்பானங்கள் இவைகளில் ஊட்டச்சத்துகளின் அளவு குறைவாக காணப்படும். **ஊட்டச்சத்தை பாதிக்கும் காரணிகள்** **1 வயது (13 முதல் 16 வயது வரை)**  வளரும் பருவ நிலையுள்ள குழந்தைகளுக்கு மிகவும் ஊட்டச்சத்து முக்கியமானது. இந்த வயதில் வளர்ச்சி மிக வேகமாக இருக்கும்.	கவனித்தல் கலந்துரையாடல் தெளிவுப்படுபத்துதல்	ஆற்றல் புள்ளி விளக்கப்படம்	துரிதா உணவு என்றால் என்ன? உணவு மற்றும் ஊட்டச்சத்து பாதிக்கும் காரணிகள் என்ன?

		2 பாலினம்  பெண் குழந்தைகளை விட ஆண் குழந்தைகளுக்கு ஊட்டச்சத்து அதிகமாக தேவைப்படுகிரறது. **3 உடல்வாகு**  **உடல்வாகு அதிகரிக்கும் போது குழந்தைகளின் உட்டச்சத்தும் அதிகரிக்கும்.**	தெளிவுப்படுத்துதல் விரிவுரைத்தல்	ஆற்றல் புள்ளிவிளக்கப்படம்	

		4 காலநிலை  **காலநிலை மாறும் போது நம்முடைய உணவு பழக்கங்களும் மாறுகின்றது.** **5 நண்பர்கள்**  நண்பர்களுடன் இருக்கும் போது துரிதஉணவு உண்பது அதிகமாகின்றது.	தெளிவுப்படு பத்துதல் விரிவுரைத்தல்	ஆற்றல்புள்ளிவிளக்கப்படம்	

		6 பசியைதூண்டுதல்  வறுத்த உணவு, சுவையானது, கவர்ச்சியான உணவு. இது அதிக அளவு துரித உணவு சாப்பிடுவதை அதிகரிக்கும். **7 அதிகமான துரித உணவு கடைகள்**  இதனால் நாம் அதிகமாக துரித உணவை பயன்படுத்துகறோம்.	தெளிவுப்படு பத்துதல் கவனித்தல் கலந்துரையாடல்	ஆற்றல்புள்ளிவிளக்கப்படம்	

3 நிமிடங்கள் 5 நிமிடங்கள்	துரிதா உணவு வகைப் படுத்தலை பட்டியலிடவும் மைதா பொருட்களில் உள்ள இரசாயனங்கள்	**துரித உணவுகளின் வகைப்பாடு** **1.மைதா உணவு** **வ.எண்** / **உணவு** / **வேதிப்பொருள்** / **விளைவுகள்** 1. பரோட்டா  — அலக்ஸான் — நீரிழிவு நோய், மலசிக்கல், உடல் பருமன், மாரடைப்பு 2. மைதா ரொட்டி  — பொட்டாசியம் புரோமைடு — வயிற்று புன், வயிற்றுப் போக்கு, விட்டமின் குறைபாடு 3. நூடுல்ஸ்  — மோனோ சோடியம் குளூட்டமேட் — நீரிழிவு நோய், உடல் பருமன், வலிப்பு, இரத்த கொதிப்பு 4. பீட்சா  — பொட்டாசியம் புரோமைடு மற்றும் பியூட்டலேட் ஹைட்ராசினி சேல் — வயிற்றுப் போக்கு, செரிமான கோளாறு, வாந்தி, வயிற்று புன் 5. பர்கர்  — ஹைட்ரலைசிடு வெஜிடபிள் புரோட்டின் — மலசிக்கல், வா தொஇந்தரவ, அலர்ஜி, வயிற்று கோளாறு	தெளிவுப்படுத்துதல் விரிவுரைத்தல்	ஆற்றல் புள்ளி விளக்கப் படம்	துரிதா உணவு வகைப்படுத்தலை பட்டியலிடவும் பற்றி விளக்கவும்? மைதா பொருட்களில் உள்ள இரசாயனங்கள் என்ன?

5 நிமிடங்கள்	பானங்கள் மற்றும் அதன் விளைவுகளை குறிப்பிடுங்கள்	**2. குளிர்பானங்கள்** **வ. எண்** / **உணவு** / **வேதிப்பொருள்** / **விளைவுகள்** .1 — **குளிர்பானங்கள்** கோக், பெப்சி, ஸ்பிரைட், 7 அப், மவுண்டைன், டாக்டர் பெப்பர்  — • டெட்ராசின், 2 மற்றும் 4 மெத்தில் மிடசோல் — • அலர்ஜி • தலைவலி • நாசியழற்சி • சோர்வு • சுவாச பிரச்சன • நுரையீரல் புற்றுநோய் கல்லீரல் புற்றுநோய் 2. கார்பனாட் சோடா  — • கார்பன் டை ஆக்ஸ்டு — • வயிற்று புன் • வா தொஇந்தரவ • உடல் பருமன் • எலும்பு புரை • பல் சொத்தை 3. **சுடான பானங்கல்** காபி  — • சைடாபாம் — • வயிற்று புன் • தலைவலி • சோர்வு • மயக்கம்	தெளிவுப்படுபத்துதல் கவனித்தல் கலந்துரையாடல்	ஆற்றல் புள்ளிவிளக்கப்படம்	பானங்கள் மற்றும் அதன் விளைவுகளை பற்றி குறிப்பிடுங்கள்?

5 நிமிடங்கள்	பால் உற்பத்தியைப் பற்றிய விவரங்கள் மற்றும் அதன் விளைவுகளைப் பற்றி விளக்குங்கள்	**3. பால்சார்ந்த பொருட்கள்** **வ.எண்** / **உணவு** / **வேதிப்பொருள்** / **விளைவுகள்** 1. ஐஸ்கீரிம்  — • பிரிலியண்டு புளூ 1 மற்றும் 2 — • பல் சொத்தை • வயிற்று புண் • தொண்டை புண் 2. மில்க்சேக்  — • பலிபொட் 80 — • அழற்சி • தொண்டை புண் • கடுமையான தலைச்சுற்றல் • மூச்சு திணறல் 3. பாஸ்டரிஸ்  — • கார்மல் கலரிங் — • அழற்ச்சி • பல் சொத்தை • வயிற்று புண் • 4. வேர்கடலை பட்டர்  — • கெஸ்சன் — • தலை வலி • வாந்தி • நரம்பு மண்டல பாதிப்பு • தலைச்சுற்றல் 5. இனிப்பு  — • அலுமினியம் பயீல் சீட் — • செரிமான கோளாறு • வாந்தி • வயிற்று புண் • வயிற்று போக்கு	தெளிவுப்படுபத்துதல் விரிவுரைத்தல்	ஆற்றல் புள்ளி விளக்கப்படம்	பால் உற்பத்தியைப் பற்றிய விவரங்கள் மற்றும் அதன் விளைவுகளைப் பற்றி விளக்குங்கள்?

3 நிமிடங்கள்	சிற்றுண்டி மற்றும் புகையுட்டப்பட்ட இறைச்சியை பற்றி விவரிக்கவும்	**4.சிற்றூண்டி திண்பண்டங்கள்** **வ.எண்** / **உணவு** / **வேதிப்பொருள்** / **விளைவுகள்** 1. லேஸ், குர்குரி, பிங்கோ, மேடு அங்கிள்  — • டெராசின் — • வற்றுப்புண் • தலைவ்லி • அலர்ஜி • சத்து குரைபாடு 2. கிரீம் கலந்த பிஸ்கட்  — • சோடியம் ஹைட்ரேட் மற்றும் ஹெட்ரோ சைக்ளிக் அமினேஸ் — • அழற்சி • எரிச்சல் 3. வருத்த உருழைகிழ்ங்கு  — • மர்ஜுனா வாக் — • தலைவ்லி • செரிமான • கோளாறு **5 புகையூட்டப்பட்ட அசைவ உணவு வகைகள்** வ.எண் / உணவு / வேதிப்பொருள் / விளைவுகள் 1. புகையூட்டப்பட்ட இறைச்சி  — • சோடியம் ஹைட்ரேட் மற்றும் ஹெட்ரோ சைக்ளிக்அமினேசஸ் — • இதய நோய் • அழற்சி • வலிப்பு • தலைச் சுற்றல் தலைவலி	தெளிவுப்படுத்துதல் கவனித்தல் கலந்துரையாடல்	ஆற்றல் புள்ளிவிளக்கப்படம்	சிற்றுண்டி மற்றும் புகையுட்டப்பட்ட இறைச்சியை பற்றி விவரிக்கவும் ?

<table>
<tr>
<td>2 நிமிடங்கள்</td>
<td>இளம் பருவத்திர்க்கான சரியான உயரம் மற்றும் எடை பட்டியலிடவும்</td>
<td>
பருவ வயது குழந்தைகலின் சுகாதார பராமரிப்பு

ஆரோக்கியமான வாழ்விற்கான முறைகள்

1. எல்லா விதமான வேதிபொரிட்கள் சேர்ககப்பட்ட சாப்பிடும் உணவுகளை தவிர்க்க வேண்டும்.
2. தொலைகாட்சியில் விளம்பரம் செய்யபட்ட துரித உணவு வகைகளை குழந்தகள் பார்ப்பது மற்றும் வாங்கி சாப்பிடுவதை தவிர்க்க வேண்டும்.
3. சத்துகள் நிறைந்த பச்சைக்காறிகள், பருப்பு வகைகள் மற்றும் காய்கறிகள் சாப்பிடுவதை ஊக்குவிக்க வேண்டும்.
4. குளிர்பானங்கள், துரித அசைவ உணவுகள், மைதா உணவுகள், பால் சார்ந்த உணவுகள், அடைத்து வைக்கப்பட்ட திண்பண்டங்கள் இவற்றை வாங்கி சாப்பிடுவதை தவிர்க்க வேண்டும். இதை பின்பற்றினால் வரக்கூடிய நோய்களை முற்றிலும் தவிர்க்கலாம

13 – 16 வயது குழந்தகளின் சரியான எடை மற்றும் உயரம்

<table>
<tr><th>வ.எண்</th><th>வயது</th><th>உயரம்</th><th>எடை</th></tr>
<tr><td>1.</td><td>13வயது</td><td>144.6 செ.மீ</td><td>32.11 கி.கி</td></tr>
<tr><td>2.</td><td>14 வயது</td><td>150.1செ.மீ</td><td>35.07 கி.கி</td></tr>
<tr><td>3.</td><td>15 வயது</td><td>155.5செ.மீ</td><td>39.06 கி.கி</td></tr>
<tr><td>4.</td><td>16 வயது</td><td>159.5செ.மீ</td><td>43.02 கி.கி</td></tr>
</table>
</td>
<td>தெளிவுப்படுபத்துதல்

விரிவுரைத்தல்</td>
<td>ஆற்றல் புள்ளிவிளக்கப்படம்</td>
<td>இளம் பருவத்திர்க்கான சரியான உயரம் மற்றும் எடை பட்டியலிடவும்?</td>
</tr>
</table>

3 நிமிடங்கள்	இளம் பருவத்திர்க்கான பரிந்துரைக்கப்பட்ட உணவு பட்டியலை விவரிக்கவும்	**இளம் பருவத்திற்கான பரிந்துரைக்கப்பட்ட உணவு வகைகள்** **ஊட்டசத்து உணவு வகைகள்** / **ஆண்** **11 – 14 வயது** / **15 – 18 வயது** கார்பாகைராட் / 225 - 325 கிராம் / 293 – 423 கிராம் காலாரி / 2200 கிலெரி / 2200 கிலெரி புரெட்டின் / 46 கிராம் / 44 கிராம் கால்சியம் / 1200 மில்லி கிராம் / 1200 மில்லி கிராம் ஜீங்க் / 12 மில்லி கிராம் / 12 மில்லி கிராம் விட்டமின் அ / 800 மில்லி கிராம் / 1000 மில்லி கிராம் விட்டமின் டி / 10 மில்லி கிராம் / 10 மில்லி கிராம் விட்டமின் சி / 50 மில்லி கிராம் / 60 மில்லி கிராம் பொலிக் அசிட் / 150 மியு.கிராம் / 180 மியு.கிராம் கொலுப்பு / 42 – 58 கிராம் / 55 – 75 கிராம் அயான் / 15 மில்லி கிராம் / 15 மில்லி கிராம் தண்ணீர் / 50 மில்லி / 50 மில்லி	கவனித்தல் கலந்துரையாடல் தெளிவுப்படுபத்துதல்	ஆற்றல் புள்ளி விளக்கப்படம்	இளம் பருவத்திர்க்கான பரிந்துரைக்கப்பட்ட உணவு பட்டியலை விவரிக்கவும்?

10 நிமிடங்கள்	உடல் உறுப்பு சார்ந்த விளைவுகளை பற்றி விளக்கவும்	**1.மைதா உணவு** **வ. எண்** / **உணவு** / **வேதிப் பொருள்** / **விளைவுகள்** **1** / பரோட்டா  / அலக்ஸான்  / **அலக்ஸான்** ⇩ **கணையத்தை அடைதல்** ⇩ **பிட்டா செல்லை பாதிக்கிறது** ⇩ **இன்சுலின் சுரப்பதை தடுக்கிறது** ⇩ **குளுக்கோஸின் அளவு அதிகரிக்கிறது** ⇩ **நிரிழிவு நோய் வருகிறது**	கவனித்தல் கலந்துரையாடல்	ஆற்றல் புள்ளி விளக்கப்படம்	உடல் உறுப்பு சார்ந்த விளைவுகளை பற்றி விளக்கவும்?

				விரிவுரைத்தல்	ஆற்றல்புள்ளிவிளக்கப்படம்	

2	நூடுல்ஸ் 	மோனோ சோடியம் குளூட்டமேட் 	மோனோ சோடியம் குளூட்டமேட் ⇩ **இது அதிகளவு கொழுப்பு உள்ளது** ⇩ **இந்த கொழுப்பு அடிப்போசைட்டில் சோமித்து வைக்கப்படுகிறது** ⇩ **இதனால் உடல்பருமன் எற்படுகிறது.**

				விரிவுரைத்தல்	ஆற்றல் புள்ளி விளக்கப்படம்	

3	பீட்சா  பர்கர் 	பொட்டாசியம் புரோமைடு மற்றும் பியூட்டலேட் ஹைட்ராசினிசேல்  ஹைட்ரலைசிடு வெஜிடபிள் புரோட்டின் 	பொட்டாசியம் புரோமைடு ⇩ **அதிகளவு உப்பு கொண்டிருக்கிறது** ⇩ **இதனால் இரைப்பை சளி சவ்வு எரிச்சல் உண்டாகிறது** ⇩ **சளி சவ்வுள் அரிப்பு எற்படுகிறது** ⇩ **வயிற்றில் புண் எற்ப்பட்டு, வயிற்று வலி, வாந்தி, வயிற்று புண் எற்படுகிறது**

		2. குளிர்பானங்கள் **வ.எண்** / **உணவு** / **வேதிப்பொருள்** / **விளைவுகள்** **1** / கார்பனாட் சோடா  / கார்பன் டை ஆக்ஸ்டு  / **அதிகளவு சோடாவை எடுக்கும்போது** ⇩ **அது நம்முடைய குடலில் சோர்கிறது** ⇩ **இதனால் கால்சியம் உறிஞ்தல் த டைச்செய்யப்படுகிறது** ⇩ **எலும்பின் திடம் குறைகிறது** ⇩ **எலும்பு தோய்மானம் எற்படுகிறது**	கவனித்தல் கலந்துரையாடல்	ஆற்றல்புள்ளிவிளக்கப்படம்	

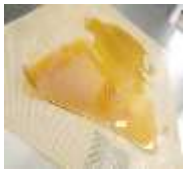
					தெளிவுப்படுபத்துதல்	ஆற்றல் புள்ளி விளக்கப்படம்	

2	**சுடான பானங்கல்** காபி 	சைடாபாம் 	**காஃபியை குடிக்கும்போது** ⇩ **அதிலுள்ள வோதிப்பொருளான சைடலாஃபம்** ⇩ **இரத்தத்தில் கலக்கிறது** ⇩ **இதானல் நரம்பு சம்மந்தமான நோய்கள் உருவாகிறது**

		2. பால்சார்ந்த பொருட்கள் **வ. எண்** / **உணவு** / **வேதிப்பொருள்** / **விளைவுகள்** ஐஸ்கீரிம்  பிரிலியண்டு புளூ 1 மற்றும் 2  பிரிலியண்டு புளூ 1 மற்றும் 2 ⇩ **மைட்டோகான்ரியா அதன் வோலையை தடுக்கிறது** ⇩ **மைட்டோகான்ரியா சுவாசம் நடைபொறுவதற்கு உதவுகிறது** ⇩ **இதானல் எடிப் உருவாதை தடுக்கிறது** ⇩ **சுவாச சம்மாந்தமான நோய்கள் வருகின்றன**	விரிவுரைத்தல்	ஆற்றல் புள்ளிவிளக்கப்படம்	

			இனிப்பு 	அலுமினியம் பயீல் சீட் 	அலுமினியம் பயீல் சீட்டை எடுக்கும் போது ⇩ **நம்மிடய வயிற்று பகுதியிலுள்ள சொல்லை அடைகிறது** ⇩ **அது நம்முடய வயிற்றுள்ள மொல்லிய தசைகளை பாதிக்கிறது** ⇩ **வயிறு சார்ந்த பிரச்சனைகளை உருவாக்கிறது**	கவனித்தல் கலந்துரையாடல்	ஆற்றல் புள்ளிவிளக்கப்படம்	

		4.சிற்றுண்டி திண்பண்டங்கள் **வ. எண்** / **உணவு** / **வேதிப்பொருள்** / **விளைவுகள்** லேஸ், குர்குரி, பிங்கோ, மேடு அங்கிள்  டெட்ராசின்  டெட்ராசின் எனும் சாயம் ⇩ நமது முளையில் உள்ள சொல்லை அடையும் போது ⇩ முளையிலுள்ள நரம்பு சொல்லை பதித்து அதன் வோலை தடுக்கிறது ⇩ நரம்பியல் சம்மானந்தமான பிரச்சானைகள் வருகின்றது	விரிவுரைத்தல்	ஆற்றல்புள்ளிவிளக்கப்படம்	

			வருத்த உருளைக்கிழங்கு சிப்ஸ் 	மர்ஜுனா வாக்ஸ் 	மர்ஜுனா வாக்ஸ் ⇩ கஞ்சா மற்றும் ஆல்காலினால் ஆனாது ⇩ முளையிலுள்ள நரம்பு சொல்லை பதித்து அதன் வோலை தடுக்கிறது ⇩ நரம்பியல் சம்மானந்தமான பிரச்சானைகள் வருகின்றது	கவனித்தல் கலந்துரையாடல்	ஆற்றல்புள்ளிவிளக்கப்படம்	

5 புகையூட்டப்பட்ட அசைவ உணவு வகைகள்

வ. எண்	உணவு	வேதிப்பொருள்	விளைவுகள்
	புகையூட்டப்பட்ட இறைச்சி 	சோடியம் நைட்ரேட் மற்றும் ஹெட்ரோ சைக்ளிக் அமினேசஸ் 	சோடியம் நைட்ரேட் ⇩ **இது இரத்த குழாய்களை பாதிக்கிறது** ⇩ **இதனால் தமனிகள் கடினமாகவும், குறுகியதாகவும் இருக்கின்றன** ⇩ **இதானல் இதாய நோய் சம்மந்தமான பிரச்சனை உருவாகிறது**

ஆற்றல் புள்ளி விளக்கப்படம்